

**THE HEALTHCARE MINISTRY OF THE REPUBLIC OF  
UZBEKISTAN  
THE TASHKENT MEDICAL ACADEMY  
THE THERAPEUTIC STOMATOLOGY DEPARTMENT**

**DISEASES OF TUNICA MUCOSA OF MOUTH**  
**(Educational – methodical instruction for the students of the 5<sup>th</sup>  
course IX – X semester of stomatology faculty)**

**Tashkent 2012**

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**This version of the manual was approved and recommended:**

“ \_\_\_\_\_ ” \_\_\_\_\_ 2012 year \_\_\_\_\_ № meeting of the protocol.

**It was approved and printed by the scientific meeting of the Tashkent Medical Academy.**

“ \_\_\_\_\_ ” \_\_\_\_\_ 2012 year \_\_\_\_\_ № meeting of the protocol.

# IX SEMESTER

## LESSON № 1

**SUBJECT: «Special features of the structure of oral mucous membrane. Classification of its diseases»**

### 1. THE PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

The continuation of the lesson: 390 minutes

### 3. The purpose of the session

To study the anatomical and histological structure of the oral mucosa, the physiology and classification of diseases, provide students with the moving and fixed parts of the mucosa, and histological structure keratinizing neopithelial functions of the mucous membrane, the classification of the oral mucosa.

Tasks;

**The student should know:**

- The anatomical features of the structure of the oral mucosa
- The histological structure of the oral mucosa
- The functions of the oral mucosa
- The classification of the diseases of the oral mucosa

**The student should be able to:**

- Identify the anatomical structures of the oral mucosa
- Identify the histological structure of the oral mucosa
- Identify the functions of the oral mucosa
- Identify the main groups of diseases of the oral mucosa, based on the classification of MMSI (1998)

### 4. MOTIVATION

The knowledge of the anatomical and histological structure of the oral mucosa is important in practical dentistry, so as not knowing normal physiology, anatomy orally the student will not be able to objectively assess the degree of pathology. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future the specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, oral surgery, prosthodontics, pediatric dentistry. Pathological anatomy, microbiology.

## 6. THE CONTENT OF CLASSES

### 6.1. The theoretical part

#### 1. The anatomy of the oral cavity.

Oral cavity is divided into the vestibule and oral cavity proper. Oral vestibule in the front is limited to lips and cheeks, behind - the vestibular surface of the teeth and alveolar processes of jaws. Strictly limited to the oral cavity in front teeth and the alveolar ridge, the top - hard and soft palate, from the bottom - the bottom of the mouth. Roth - a set of organs and tissues: tongue, lips, teeth, salivary glands, periodontium, jaw. Threshold and the actual oral cavity are lined with mucous membrane.

#### 2. The histology of the oral mucosa.

The oral mucosa is composed by three layers - the epithelial, mucosal and submucosal properly. The epithelium is stratified squamous, has a thickness of 500 microns. The deepest layer of cylindrical or cubic cells located on the basement membrane is called the basal layer. The protoplasm of cells of this layer is often different basophilic, depending on the content of ribonucleic acid. Then a wet layer consisting of several rows of polygonal cells with lighter cytoplasm came and intercellular bridges pronounced. As we approach the surface of the cell layer flatten and become flat, which are constantly exfoliated and mixed with saliva to. Regeneration of the epithelium is due to cell division in the deeper layers. The described structure of the epithelium is characteristic of the mucous membrane of cheeks, lips, soft palate, transitional folds vestibule of the mouth, as well as the floor of the mouth and the lower surface of the tongue.

Mucosal epithelium of the hard palate and gums, i.e. departments most affected by mechanical stress during mastication, coarsen. The process of keratinization is especially pronounced in the epithelium of the hard palate. Above the layer of cells located here a wet granular layer of elongated cells containing in their protoplasm. Surface "horny" layer is formed by several rows of fully keratinized and devoid of nuclei of cells.

It is histochemically found that the oral epithelium is able to accumulate a large amount of glycogen, most of it is contained in the epithelium of the lips, cheeks, soft palate, transitional folds, and tongue. In the epithelium of the hard palate and gums, glycogen is normal or not, or is in the form of traces. Thus, Glycogen is in the most of those departments of the oral mucosa where the epithelium is not

exposed to keratinization. This relationship retains its significance and pathology. Glycogen probably plays a role as a source of energy or plastic material for the synthesis of protein - keratin. Therefore, it is quickly consumed and not detected in areas of keratinization. The presence of glycogen is a feature only of the epithelium of human oral cavity.

The connective tissue framework of the oral mucosa, which is the epithelium, forms its own layer. It consists of dense connective tissue and forms numerous projections - buds, embedded in the epithelium. They are blood vessels that nourish epithelium and nerves. Papillae increase the mucosal surface of the cavity between the own layer and mucosal epithelium, which contributes to the exchange of substances between them.

Own, without a sharp boundary layer becomes the submucosal layer. In some places, oral submucosal layer generally is not expressed (tongue, gums, hard palate, lateral divisions and palatal suture). There still adherent to the mucosa intramuscular connective tissue (in the tongue) or periosteum (on hard palate and gums).

In the oral mucosa of various departments laid large numbers of small salivary glands. By the nature of the secret they share on the mucous membranes, protein and mixed. In addition, on the surface of the oral mucosa of large open ducts of salivary glands - parotid, submandibular and sublingual.

### **3. Physiology of the oral cavity.**

The secret of small and large glands of saliva. One day a person is produced and secreted into the oral cavity of about 1.5 liters of saliva. Besides water, mucus and protein in the saliva contained 0.2% inorganic substances, mostly salts of calcium, potassium, sodium, whose concentration is many times higher than in blood. There are trace elements - iron, copper, manganese, nickel, lithium, etc. Organic compounds consist mainly of albumin, globulins, enzymes. Saliva also contains various vitamins.

Saliva found more than 50s of enzymes belonging to hydrolases, transferases, lipase, and isomers. Of particular interest is the saliva lissome, which has bacteriolytic, anti-inflammatory, antihistamine, haemostatic effect, enhances the action of antibiotics contributes to the acceleration of reparative processes in tissues of the mouth. "Immune" corpuscles contained in the saliva by the local immunity of the mouth. Saliva, pouring into the mouth of the excretory ducts of salivary and mucous glands, is transformed into a so-called oral fluid, which mixed with desquamated epithelial cells, microorganisms, neutrophils, lymphocytes, sometimes.

Depending on the composition of food consumed the impact of the environment and body condition changes and the composition of saliva. The normal reaction of oral fluid is slightly alkaline (pH - 6.9). The value of pH varies depending on the nature of the pathological process in the oral cavity: a reaction in infectious diseases acidic. The changes in the composition of saliva lead to tooth deposits of stones, which in turn is a predictor of gingivitis. In the oral mucosa laid receptors that provide taste, pain, cold, heat, tactile sensitivity, and others. Taste buds are laid mainly in the papillae of the language. Tactile sensitivity is most pronounced

in the red border of the lips and the tongue in particular. Pain sensitivity is weak, it is better to bow palate, soft palate and in anticipation of the oral cavity. Temperature sensitivity in different parts of the mucosa varies. For example, at the bottom of the mouth and the gums, it is totally absent. Cold reception is better developed than the thermal. Depending on the hour which areas of the oral mucosa are irritated, there are corresponding reflex changes, for example, the characteristic reaction vessels. Thus, the stimulation of taste buds with sweet substances marked vasodilatation of extremities, bitter substances cause their contraction. Stimulation of receptors mouth has an effect on gas exchange and efficiency of the muscles.

Physiological characteristics of the oral mucosa are manifested in the regenerative ability of the epithelium. Regeneration of epithelial cells occurs as a result of mitotic cells of the basal layer. The rate of renewal of the epithelium of the oral mucosa exceeds the rate of reproduction of the epidermis. It is known that the wounds in the mouth heal faster than skin. Increased regeneration of the oral mucosa occurs as a consequence of her earliest appearance in glycogen, increased RNA content, as well as the accumulation of acid mucopolysaccharides, etc. Rapid healing of the oral mucosa compared with skin and due to the presence of poorly differentiated mucous cell elements. Fibroblasts of the oral mucosa compared with skin fibroblasts are less differentiated and have the form characteristic of young cells. Leading role in the reparative processes are coagulation factors and fibrinolytic enzymes. The physical strength of the oral mucosa and its ability to withstand turgor pressure are determined, compression, stretching. The hydrophilicity of the mucosa, its physical strength, flexibility, oral mucosa and retraction ability to determine its turgor, which does not change and does not depend on the thickness of the submucous tissue, but undergoes age-related changes. The ability of the oral mucosa to stretching depends on the elastic and collagen fibers. The physical strength of her newborn babies is less than in young and mature.

The buffer capacity of the oral mucosa is the ability to neutralize the effects of acids and alkalis and to quickly restore the pH environment of the mouth. It depends on the presence and thickness of the stratum corneum and secretion of salivary glands and changes in pathological processes in the oral cavity.

Oral mucosa has a suction capacity, which varies in different areas and for different substances. This property is used for administration of certain drugs, for example, is better absorbed in the mucous validol floor of the mouth. It should be remembered that a healthy mucosa absorbs drugs faster than pathological changes. Thus, the barrier function of oral mucosa is responsible for a variety of factors such as anatomical and functional. These include uneven keratinization metatches-physical activity of epithelial cells and high-regeneration ability, metabolic activity, accumulation of glycogen, the presence of a large number of cellular elements in its own layer of mucous membrane and the migration of leukocytes into the oral cavity, salivary bactericidal components, selective suction ability and physical strength of the oral mucosa, etc.

Oral cavity throughout life is the main input for the micro-organisms by the

environment .. Persistence of microorganisms provided some antagonistic action of microbe sea other antibacterial properties of saliva. The microflora of various parts of the mouth is diverse and changes with age. A characteristic flora for smooth mucosa (the sky, cheeks, gums) are streptococci, vibratos and complex due to the presence of teeth. The species composition of microflora in the oral cavity is aerobic and anaerobic microorganisms. One ml of saliva concentration of aerobic and facultative bacteria is 10 million, and anaerobic - 100 million. The most common are coccid of salivary streptococci, which include the 306 strains of streptococci from 409, isolated from saliva. In addition to saprophytic species of coccid of oral alpha sown - streptococci and staphylococci. enterococci (group D streptococci) are treated as permanent inhabitants of the oral cavity. Characteristic of saliva microbes are limited only to the oral pharynx. E. coli from the saliva of only sow with a decrease in mucosal organism in cases of symbiosis. Often in symbiosis with oral spirochetes are fusiform bacteria, which in turn are in symbiosis with staphylococci and streptococci. In maintaining the constancy of the microflora of oral streptococci plays an important role, in the suppression of that imbalance between the permanent inhabitants of the cavity and marks an increase of random flora. Thus, bacterial antagonism is a significant factor in antibacterial protection of the oral mucosa. In the mouth some viruses, such as herpes simplex viruses can carry about 60% of the people.

#### **4. Classification of diseases of the oral mucosa.**

To systematize the pathological conditions (diseases) of the oral mucosa EV Borovsky and A. Mashkilleyson in 1984 proposed to group them, based on etiologic or pathogenetic factor, as follows:

I. Traumatic lesions due to the action of mechanical factors, high and low temperatures, radiation, adverse weather factors (meteorological cheilitis, cracked lips), chemicals and other form manifestations: flushing, erosion, ulceration, hyperkeratosis (leukoplakia).

II. Infectious diseases:

1. Lesions of the oral mucosa in acute and chronic infectious diseases (measles, scarlet fever, chicken pox, tuberculosis, syphilis, leprosy, etc.).

2. Actually infectious and parasitic diseases of the oral mucosa and lips:

- Viral (herpes, HIV infection, warts and etc.);

- Fuzospirohetoz;

- Bacterial (streptococci - and staphylococcal, Gonorrheal, etc.);

- Fungal (candidiasis, actinomycosis, etc.);

III. Allergic and toxic - allergic diseases:

- Allergic contact stomatitis, gingivitis, glossitis, cheilitis (of drugs, plastics and other materials used in dentistry, dyes, tooth pastes, elixirs and other chemicals that come into contact with mucous membranes or lips red border, ultraviolet rays);

- Fixed and common toxic - allergic lesions (from drugs, nutrients and other allergens entering the body in different ways);

- Dermatitis with lesions of the oral mucosa of toxic - allergic origin (erythema multiform, Stevens Johnson \_, Lyell's syndrome, primary systemic vacuities, including Wegener's syndrome).

IV. Diseases with an autoimmune component in pathogenesis:

- Recurrent pathos stomatitis, including cicatrizing naphtha;
- Behest's syndrome., Including a large apotheosis Touraine;
- Jorgen's syndrome;
- Dermatitis with lesions of the oral mucosa (pemphigus, pemphigoid, a disease During, systemic lupus erythematosus, systemic scleroderma).

V. Coetaneous - mucous reaction - lichen planus.

VI. Changes in the oral mucosa with exogenous intoxications.

VII. Changes in the oral mucosa and lips red border in the pathology of various organs and body systems and metabolic disorders:

- At the visceral and endocrine diseases;
- With hypo - and beriberi;
- With blood diseases and blood-forming organs;

the pathology of the nervous system;

- During pregnancy.

VIII. Congenital and genetically determined diseases:

- Nevi and epithelial dysplasia: vascular nevi, including the syndrome Surge - Weber, warty and pigmented nevi, epidermoid cyst, a disease Fordyce, white sponge nevus (soft leukoplakia, "biting the cheek," etc.), a hereditary benign intraepithelial dyskeratosis;
- Folded and rhomboid glossitis;
- Glandular cheilitis;
- Dermatitis with lesions of the oral mucosa and lips, bullous epidermolysis, atopic dermatitis (cheilitis), psoriasis, ichthyoids, Darer's disease, a syndrome Pitts
- Jiggers - Touraine, congenital parotid, angidrotic epithelial dysplasia.

IX. Precancerous lesions, benign and malignant neoplasms:

- Obligate precancer: Bowen's disease, Boroday-chatyprecancer limited hyperkeratosis red border of lips, cheilitis abrasive;
- Optional precancer: leukoplakia papillomatosis, kerato-acanthoma, skin horn, erosive - ulcerous and hipercerotatic forms of lupus erythematosus and lichen ruberplanus, hearable cheilitis;
- Benign tumors;
- Cancer.

## **METHODS OF BUSINESS GAMES**

### **“ROUND TABLE”**

Requires:

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper, pens.

Progress:

1. All students are divided into groups by drawing lots into 3 subgroups.

2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups is approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results; choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

Options questions:

1. The anatomical structure of oral mucosa

A: The oral cavity is divided into the vestibule and oral cavity proper. Oral vestibule in the front is limited to lips and cheeks, behind - the vestibular surface of the teeth and alveolar processes of jaws. Strictly limited to the oral cavity in front teeth and the alveolar ridge, the top - hard and soft palate, from the bottom - the bottom of the mouth. Roth - a set of organs and tissues: tongue, lips, teeth, salivary glands, periodontium, jaw. Threshold and the actual oral cavity are lined with mucous membrane.

2. Histological structure of the oral mucosa

A: The oral mucosa is composed of three layers - the epithelial, mucosal and submucosal properly. The epithelium is stratified squamous, has a thickness of 500 microns. The deepest layer of cylindrical or cubic cells located on the basement membrane is called the basal layer. The protoplasm of cells of this layer is often different basophilic, depending on the content of ribonucleic acid. Then comes a wet layer consisting of several rows of polygonal cells with lighter cytoplasm and intercellular bridges pronounced. As we approach the surface of the cell layer flatten and become flat, which are constantly exfoliated and mixed with saliva to. Connective tissue framework of the oral mucosa, which is the epithelium, forms its own layer. It consists of dense connective tissue and forms numerous papillae projections introduced in epithelia. Private layer without a sharp boundary changes in submucosal layer. In some places, oral submucosal layer generally is not expressed (tongue, gums, hard palate, lateral divisions and palatal suture). There still adherent to the mucosa intramuscular connective tissue (in language) or periosteum (on hard palate and gums).

3. Physiology of oral cavity

Answer: The secret of small and large glands of saliva. One day a person is produced and secreted into the oral cavity of about 1.5 liters of saliva. Besides water, mucus and protein in the saliva contained 0.2% inorganic substances, mostly salts of calcium, potassium, sodium, whose concentration is many times higher than in blood. There are trace elements - iron, copper, manganese, nickel, lithium, etc. Organic compounds consist mainly of albumin, globulins, and enzymes. Saliva also contains various vitamins.

The normal reaction of oral fluid is slightly alkaline (pH - 6.9). Physiological characteristics of the oral mucosa are manifested in the regenerative ability of the epithelium. Regeneration of epithelial cells occurs as a result of mitotic cells of the basal layer.

4. The buffer capacity of the oral mucosa.

Answer: It consists in the ability to neutralize the effects of acids and alkalis and to quickly restore the pH environment of the mouth. It depends on the presence and thickness of the stratum corneum and secretion of salivary glands and changes in pathological processes in the oral cavity.

5. Suction capacity of the oral mucosa.

Oral mucosa has a suction capacity, which varies in different areas and for different substances. This property is used for administration of certain drugs, for example, is better absorbed in the mucous validol floor of the mouth. It should be remembered that a healthy mucosa absorbs drugs faster than the pathologically altered ..

6. The microflora of the oral cavity.

A: The mouth throughout life is the main input for the micro-organisms by the environment. Persistence of microorganisms provided some antagonistic action of microbes and other antibacterial properties of saliva. The microflora of various parts of the mouth is diverse and changes with age. The characteristic floras for smooth mucosa (the sky, cheeks, gums) are streptococci, vibratos and fuzospirial complex due to the presence of teeth

7. The classification of oral mucosa

Answer: For systematic pathologies (diseases) of the oral mucosa EV Borovsky and A. Mashkilleysen in 1984 proposed to group them by taking as a basis for etiological or pathogenesis factor, as follows:

I. Traumatic lesions due to the action of mechanical factors, high and low temperatures, radiation, adverse weather factors (meteorological cheilitis, cracked lips), chemicals and other form manifestations: flushing, erosion, ulceration, hyperkeratosis (leukoplakia).

II. Infectious diseases:

1. Lesions of the oral mucosa in acute and chronic infectious diseases (measles, scarlet fever, chicken pox, tuberculosis, syphilis, leprosy, etc.).

2. Actually infectious and parasitic diseases of the oral mucosa and lips:

- Viral (herpes, HIV infection, warts, etc.);
- Fuzospirohetoz;
- Bacterial (streptococci - and staph, Gonorrhoeal, etc.);
- Fungal (candidacies, actinomycosis, etc.);

### III. Allergic and toxic - allergic diseases:

- Allergic contact stomatitis, gingivitis, glossitis, cheilitis (of drugs, plastics and other materials used in dentistry, dyes, tooth pastes, elixirs and other chemicals that come into contact with mucous membranes or lips red border, ultraviolet rays);
- Fixed and common toxic - allergic lesions (from drugs, nutrients and other allergens entering the body in different ways);
  - Dermatitis with lesions of the oral mucosa of toxic - allergic origin (erythema multiform, Stevens Johnson \_, Lyell's syndrome, primary systemic vacuities, including Wegener's syndrome).

### IV. Diseases with an autoimmune component in pathogenesis:

- Recurrent pathos stomatitis, including cicatrizing naphtha;
- Behest's syndrome., Including a large apotheosis Touraine;
- Jorgen's syndrome;
- Dermatitis with lesions of the oral mucosa (pemphigus, pemphigoid, a disease During, systemic lupus erythematosus, systemic scleroderma).

### V. Coetaneous - mucous reaction - lichen planus.

### VI. Changes in the oral mucosa with exogenous intoxications.

### VII. Changes in the oral mucosa and lips red border in the pathology of various organs and body systems and metabolic disorders:

- At the visceral and endocrine diseases;
- With hypo - and beriberi;
- With blood diseases and blood-forming organs;
- the pathology of the nervous system;
- During pregnancy.

### VIII. Congenital and genetically determined diseases:

- Nevi and epithelial dysplasia: vascular nevi, including the syndrome Surge - Weber, warty and pigmented nevi, epidermoid cyst, a disease Fordyce, white sponge nevus (soft leukoplakia, "biting the cheek," etc.), a hereditary benign intraepithelial dyskeratosis;
- Folded and rhomboid glossitis;
- Glandular cheilitis;
- Dermatitis with lesions of the oral mucosa and lips, bullous epidermolysis, atopic dermatitis (cheilitis), psoriasis, ichthyoids, Darer's disease, a syndrome Pitts
- Jiggers - Touraine, congenital paronychia, epithelial dysplasia.

### IX. Precancerous lesions, benign and malignant neoplasms:

- Obligate precancer: Bowen's disease, Boroday-chatyprecancer limited hyperkeratosis red border of lips, cheilitis abrasive Manganotti;
- Optional precancer: leukoplakia, papillomatosis, keratoakantoma, cutaneous horn, erosive - ulcerous and hiperceratotic forms of lupus erythematosus and lichen ruberplanus, hearable cheilitis;
- Benign tumors;
- Cancer.

## 6.2. ANALYTICAL PART

Drawing on diaries,

"The structural characteristics of the oral mucosa":

1. Clusters
2. Categorical tables.

The decision of situational problems:

Case number 1 problem

The patient was 22 years old, complained of bad breath, sometimes in the mouth appear painful education. At this time, eating is difficult because of the pain and burning, it's a matter of concern the patient. To place a prior diagnosis requires an inspection of the mouth.

1. Threshold of the mouth is not:

- a. Stenonov duct
- b. frenulum of the upper lip
- in. frenulum of lower lip

Mr. Bridle language \*

Fordyce glands on

2. In advance of the oral cavity includes:

- a. transitional fold \*
- b. mouth floor
- in. frenulum of tongue

Mr. Wharton duct

on bridle

Case number 2 problem

Patient 43 years complains of discomfort language.

1. An objective examination of the language are not papillae:

- a. leaf
- b. rhomboid \*
- in. mushroom, the filamentous

2. The most numerous papillae of the language are:

- a. filamentous \*
- b. mushroom, the leaf

Situational problem number 3.

The patient complains of bad breath and thirst.

1. Which parts of the mouth should be examined:

and. threshold of the oral cavity

b. proper mouth

in. language

, the sky

d. all answers are correct \*

2. Stiffness of the mucous membrane gum provided by:

and. submucosal layer \*

b. its own layer

in. epithelium, the stratum corneum

on a granular layer

#### Situational problem № 4

Patient 25 years, a persistent smoker, complains of a feeling of tightness and burning sensations in the mouth, the appearance of whitish spots on the buccal mucosa. An objective examination on the buccal mucosa revealed irregular opacities of the epithelium with sharp edges. The spot is not above the level of the surrounding areas of the oral mucosa.

1. What main methods for studying the oral mucosa are necessary to:

a. palpation \*

b. citologic

in. bacteriological, the functional  
on immunological.

2. What element defeat of the oral mucosa observed in the patient:

and. spot \*

b. naphtha

in. ulcer

, the crack

3. Within some sections of the oral mucosa is the spot:

and. epithelium \*

b. proper mucous layer

in. submucosally

, the muscle layer

on connective tissue layer

4. In its own layer does not happen:

and. osteoblasts \*

b. fibroblasts

in. histiocytes

, the macrophages

on mast cells

### 6.3. The practical part

Practical skills: Palpation of the oral mucosa.

Purpose: To teach students palpation of the oral mucosa.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer),  
tools for exploring the oral cavity

The Execution of manual skills:

№	Follow the steps:	The Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear a protective equipment	0	10	20
2	Right arm with a plastic rubber glove on	0	10	20

	her palpate morphological element.			
3.	Thumb and forefinger of his right hand to determine the boundaries of the morphological elements	0	10	20
4.	Use your fingers to probe the ingrowth of the element c the underlying tissues	0	10	20
5.	Determine consistency, tenderness and size of morphological elements.		10	20
	Total:	0	50	100

### 10. Study Questions

1. Features of the structure of the mobile oral mucosa.
2. Features of the structure fixed oral mucosa.
3. Call papillae language.
4. Call keratinizing papillae language.
5. The ducts of the salivary glands which open into hyoid region
6. The ducts of the salivary glands which open on the eve of the oral cavity
7. In what year was accepted classification of diseases of the oral mucosa

## LESSON № 2

**THEME: «Methods of examination of patients with oral mucous membrane diseases.»**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.
- 

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. The purpose of the session

To familiarize students with basic survey

- a) survey;
- b) inspection

With the additional methods of examination

- a) laboratory
- b) the allergological
- a) functional
- d) cytological
- e) fluorescent, etc.

Tasks:

#### **The student should know:**

- the basic methods of examination of patients with diseases of the oral mucosa
- additional methods of examination of patients with diseases of the oral mucosa
- Using the basic methods of examination a preliminary diagnosis
- Using additional methods to conduct a survey similar to the differential diagnosis of the clinical course of diseases of the oral mucosa

#### **The student should be able to:**

- Conduct a survey of patients with diseases of the oral mucosa
- Use basic methods of the examination
- For a definitive diagnosis to use additional methods of examination
- Differentiate-related clinical manifestations of disease of the oral mucosa.

### 4. MOTIVATION

The student should be aware that regulations for proper diagnosis must be carefully and clearly to make examination of the patient. Since the correct diagnosis is the key to successful treatment and speedy recovery. Using basic methods of examination, the student can put the preliminary diagnosis, using additional techniques may hold differential diagnosis of similar clinical course of the oral mucosa.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, oral surgery, prosthodontics, pediatric dentistry. Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

1. Theme: "Methods of examination of patients with diseases of the oral mucosa." For the diagnosis of diseases of the oral mucosa but the basic methods (subjective and objective) research is necessary to use a variety of additional methods.

The approximate scheme of examination of patients with diseases of the oral mucosa:

1. The complaint.
2. History of the disease.
3. Patient survey of systems and organs.
4. Study of oral microflora (microbial species, their sensitivity to drugs).
5. Taking material from the mucosa for cytological examination.
6. Biopsy of the elements of destruction of the oral mucosa.
7. Research pH of the mouth.
8. Skin tests with allergens sera and vaccines.
9. Total blood.
10. Blood cultures for sterility.
11. Blood tests for bilirubin, cholesterol, fibrinogen, sugar, total protein, protein fractions, histamine.
12. Urinalysis, and on the testimony of the special tests.
13. Fractional examination of stomach contents.
14. Studies of duodenal contents.
15. Fluoroscopy (graphy) of the chest and gastro - intestinal tract.
16. Studies on fecal eggs.
17. Sigmoidoscopy.

18. Additionally, there may be additional research conducted other assigned related professionals.

Most often in diagnosing diseases of the oral mucosa, oral mucosal keratosis, used fluorescent diagnostics - a method of macro-luminescence in the light of Wood. Normal oral mucosa in the light of Wood's has a blue - blue, due to close proximity of the vessels. If lichen planus is observed whitish - bluish glow element of defeat, in a simple form of leukoplakia is defined dull - white glow, with verrucous leukoplakia - white, with erosive - brown glow erosions and whitish areas of keratinization. Lupus erythematosus is a snow-white glow. Warty precancer in the light of Wood's has a dark - brown, etc.

Functional tests blister test used to determine the hydrophilicity of tissue edema, and a hidden state of the oral mucosa.

Histamine test is used to determine sensitivity to gista minu is involved in allergic reactions.

Schiller-Pisarev sample used to determine the prevalence and intensity of the inflammatory process and is based on the staining of glycogen contained in the oral mucosa iodine in brown.

Sample Yasinovka-held to assess the emigration of leukocytes across the oral mucosa and the number of desquamated epithelium.

Sample Kavetsky (Bazarnova) with blue is used to determine the phagocytic activity and regenerative capacity of tissues.

Rotter-sample used to determine the saturation of the organism with ascorbic acid.

Laboratory Methods: cytological research methods are based on a study of the structural features of the cellular elements and their conglomerates. The material can be a smear - imprint smear - reprints, smear - a scraping the surface of the mucosa, erosions, ulcers, fistulas, etc. washing liquid oral and punctate area located in the deep lying tissues.

Biopsy-vivo excision of tissue for microscopic examination for diagnostic purposes.

Bacteriological examination-bacterioscopy material obtained from the surface of the oral mucosa, ulcers, erosions.

Serology - methods for the study of certain antibodies or antigens in the serum of the patient, as well as antigen detection of micro-organisms or tissues to identify them based on the reactions of immunity (Wassermann, Kahn, HIV - infection, etc.)

Diagnosis of drug allergy: Allergic history, production and skin samples from drug or serum therapy.

The total blood count includes the determination of the amount of hemoglobin, the number of erythrocytes and leukocytes, color index, leukocyte count, and is an important additional diagnostic method.

Biochemical studies of blood, urine, etc., on the level of glucose, enzymes, bilirubin, etc. Often there is a need for studies of gastric juice, etc.

## **METHODS OF BUSINESS GAMES**

### **“ROUND TABLE”**

Requires:

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper, pens.

Progress:

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

Optional questions:

1. List the functional methods of examination:

A: The blister test used to determine the hydrophilicity of tissue edema, and a hidden state of the oral mucosa.

Histamine test is used to determine sensitivity to histamine is involved in allergic reactions.

Sample Schiller - Pisarev used to determine the prevalence and intensity of the inflammatory process and is based on the staining of glycogen contained in the oral mucosa iodine in brown.

Sample Yasinovka - conducted to assess the emigration of leukocytes across the oral mucosa and the number of desquamated epithelium.

Sample Kavetsky (Bazarnova) with blue is used to determine the phagocytic activity and regenerative capacity of tissues.

Sample Rotter - used to determine the saturation of the organism with ascorbic acid.

2. List the laboratory methods of examination:

Answer: The cytological research methods are based on a study of the structural features of the cellular elements and their conglomerates. The material can be a

smear - imprint smear - reprints, smear - a scraping the surface of the mucosa, erosions, ulcers, fistulas, etc., sediment washing liquid oral and punctate area located in the deep lying tissues.

A biopsy - tissue in vivo excision for microscopic examination for diagnostic purposes.

Bacteriological examination-bacterioscopy material obtained from the surface of the oral mucosa, ulcers, erosions.

Serology - methods for the study of certain antibodies or antigens in the serum of the patient, as well as antigen detection of micro-organisms or tissues to identify them based on the reactions of immunity (Wassermann, Kahn, HIV - infection, etc.)

### 3. The method of fluorescent diagnostics

A: The method macro-luminescence in the light of Wood. Normal oral mucosa in the light of Wood's has a blue - blue, due to close proximity of the vessels. If lichen planus is observed whitish - bluish glow element of defeat, in a simple form of leukoplakia is defined dull - white glow, with verrucous leukoplakia - white, with erosive - brown glow erosions and whitish areas of keratinization. Lupus erythematosus is a snow-white glow. Warty precancer in the light of Wood's has a dark - brown, etc.

### 4. Describe the approximate scheme of examination of patients with diseases of the oral mucosa.

Answer: The approximate scheme of examination of patients with diseases of the oral mucosa:

-Complaints.

-A history of the disease.

-Examination of the patient with respect to systems and organs.

-Studies of oral microflora (microbial species, their sensitivity to drugs).

-Taking the material from the mucosa for cytological examination.

Biopsy-element lesions of the oral mucosa.

Research-pH environment of the mouth.

-Skin tests with allergens sera and vaccines.

-CBC.

-Blood cultures for sterility.

-Blood tests for bilirubin, cholesterol, fibrinogen, sugar, total protein - protein fraction, histamine.

-Urinalysis, and on the testimony of the special tests.

Fractional-examination of stomach contents.

Research-duodenal contents.

Fluoroscopy-(graphy) of the chest and gastro - intestinal tract.

-Research fecal eggs.

Sigmoidoscopy-

## 6.2. ANALYTICAL PART

Drawing on diaries, "Methods for the examination of patients with diseases of the oral mucosa":

1. Categorical table.

The decision of situational problems.

Case number 1 problem

1. When viewed from the oral cavity in a patient after taking the antibiotic found in the language of hyperemia and easily removable white patches. For an accurate diagnosis a method of examination should be carried out.

- a) Microbiology \*
  - c) the histamine test
  - c) serological method
  - d) immunological method
  - e) functional method
2. Spend a differential diagnosis:
- a) leukoplakia
  - b) lichen planus
  - c) allergic stomatitis
  - g) syphilitic papule
  - d) All answers are correct \*

3. The main method of the survey is to:

- A palpation \*
- B cytologic
- In the bacteriological
- Mr. functional
- D immunological

Case number 2 problem

1 .. In a patient 56 years notes verrucous leukoplakia cheeks. The mucous membrane of the oral keratinization, increased hemorrhage. What additional methods of examination is necessary to:

- a) cytological \*
  - a) Fluorescent
  - c) histological
  - d) microbial
  - e) The immunological
2. Luminescent method used to determine the
- A character keratosis \*
  - B-specific lesions
  - In fungal infections
  - D viral lesions
  - D Allergies

3. By cytological methods include:

- A smear - print \*
- B fluorescent
- In functional
- D tomography
- A sample of Aldrich

Situational problem number 3

Patient 45 years, complained of discomfort in the oral examination revealed objective hyperemia and edema of the mucosa RTA. Being carried out main survey methods: inspection, survey, palpation.

1. For detection of inflammation used a sample:

A. Schiller - Pisarev \*

B Yasinovka

In Aldrich

Mr. Rotter

A Kavetsky - Bazarnova

2. The degree of tissue saturation with ascorbic acid test detects:

A Rotter \*

B Aldrich

In Schiller - Pisarev

Mr. Yasinovka

A Kavetsky - Bazarnova

Situational problem № 4

The patient complains of 36 years of unpleasant sensations in the mouth caused by 7-10 after the imposition of a permanent seal on / \_7. An objective examination on the buccal mucosa observed erosion at the sharp edge of the reconstructed crown / \_7

1. Write a formula for tooth WHO

A: / \_27

2. What is the secondary element of the lesions observed in the patient:

and. spot

b. node

in. tubercle

, the erosion \*

on cyst

3. What additional methods of examination to be held on:

and. cytology \*

b. bacteriological

in. inspection

palpation, the

on the patient survey

4. What are the remedial measures necessary to:

and. grinding and polishing of fillings \*

b. regional anesthesia

in. tooth extraction

cryotherapy, the

on excision of tissue

### 6.3. The practical part

Skill Manual "Methods of examination of patients with diseases of the oral mucosa."

Purpose: To teach students the methods of examination of patients with diseases of the oral mucosa.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

Execution of manual skills:

No	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	To wear protective equipments	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	Properly inspect the oral cavity	0	10	20
5.	Palpate the salivary glands		10	20
	Total:	0	50	100

### 10. Study Questions

1. Position of the patient with disease of the oral mucosa in a chair
2. Scheme survey of patients with diseases of the oral mucosa.
3. Features interview with the patient diseases of the oral mucosa.
4. The value of the pain symptom in the diagnosis of diseases of the maxillofacial area.
5. List the clinical and laboratory diagnostic methods
6. List the functional methods of examination
7. List cytological research methods

## LESSON № 3

**THEME: «Pathologik processes involving the oral mucosa. Microscopic (grossly visible) lesions.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope , TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

To study the pathological processes that occur in the oral mucosa in various diseases and morphological elements for each pathology.

#### **Tasks:**

##### **The student should know:**

- of pathological processes in the oral mucosa, characteristic for each disease
- about the manifestations of each disease process(morphological elements) in the oral mucosa
- Distinguish between primary morphological elements
- distinguish secondary morphological elements
- the nature of the morphological elements the student will deliver preliminary diagnosis.

##### **The student should be able to:**

- to distinguish separate pathological processes occurring in the oral mucosa
- distinguish between the primary elements of destruction
- distinguish between the secondary elements of defeat
- define the various stages of destruction of the element
- differentiating elements of destruction similar to each other
- by-element damage to orient the diagnosis

### 4. MOTIVATION

When the diagnosis is essential knowledge elements lesions of the mucous membranes of the mouth and lips red border. Proper identification of the element damage to a large extent provides the correct diagnosis.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, oral surgery, prosthodontics, pediatric dentistry, pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

1. Subject Pathological processes are expressed in the change of color, integrity and topography of the oral mucosa. It is particularly important for the diagnosis of diseases of the oral mucosa to be able to distinguish between degenerative processes in the epithelium.

Spongiosis - accumulation of fluid between the cells layer. The fluid accumulating may protoplasmic bridges cells and fills the cavity to form bubbles.

Ballooning degeneration - a violation of communication between cells layer, which leads to a free location of individual cells or groups of exudates produced bubbles in the form of balls (Balonov).

Acantholysis - modified cells layer, reflected in the melting of the intercellular protoplasmic bridges.

Acanthuses - a thickening layer of cells characteristic of inflammation.

Hyperkeratosis - is excessive cornification at the expense of the phenomena desquamation or enhanced production of keratinized cells.

Parakeratosis - a violation of the process of keratinization, which is reflected in the incomplete keratinization of surface cells layer.

Papillomatosis - is the expansion of the papillary layer in the direction of the epithelium.

Distinguish primary elements of destruction, i.e., occur independently, and secondary, developing from the primary. In addition, a monomorphic type of injury - Cluster homogeneous primary elements and polymorphic type of injury - Cluster of heterogeneous primary cells. Different stages of development of one element - a false polymorphism.

Primary morphological elements:

#### A. INFILTRATIV

Stain - discoloration of the mucous membrane. The spots are small and large spills and limited, persistent and unstable. Characteristic of spots is that they are not felt on palpation. Distinguish vascular, pigmented spots resulting from deposits in the mucosa of dyes. Vascular stains may result from a temporary reflex dilating the blood vessels and inflammation. Inflammatory spots can have different shades of red, with pressure on them; they always disappear and then reappear. Multiple small spots are called rosella large - erythematic. Stains resulting from persistent non-inflammatory enlargement of surface vessels or tumors, known as

telangiectasias. Spots on the skin and mucous membranes may result from the integrity of the vascular wall (rupture, increased permeability) - hemorrhagic spots. The color of these spots does not disappear under pressure and as a function of time. Elapsed after hemorrhage, has different shades. Dot hemorrhages called petechiae, multiple hemorrhages of small size are called purport, large hemorrhages - ecchymosis.

Pigment spots are the result of congestion, or reduce, and sometimes complete lack of melanin pigment.

Lace - the formation in the epithelium due to acanthuses, acting over the surface of the mucosa. The surface of the nodules may be flat, conical or hemispherical, the shape of round or polygonal. The nodules can be of varying color and consistency. The quantity of millet grains knots or more, they may grow in size and coalesce to form plaques. The healing of nodules on their site no trace remains.

Node - the tight formation, originating in the sub mucosal layer. Detected by palpation in the form of a dense infiltrate round. As the increases, he rises above the mucosal surface. Perhaps there is suppuration or ulceration of the site.

Bump - this infiltration education, exciting all the layers of the mucosa and rises above its surface, usually located tubercles are crowded and fast decay. In their place are formed ulcerated surface covered with granulation and vegetations. Heal with scar formation.

#### B. E K S V D A T I V

Bubble - an element of the cavity resulting from a limited collection of fluid. Is located in layer has a bottom and a thin tire, rises above the mucosal surface and is easily opened by mechanical action. Dimensions of the bubble to 2 mm

Bubble - the cavity formation, which differs from the larger bubble size and position of the liquid not only inside but also sub epithelial. When the bladder intraepithelial tire is composed of cells layer and revealed very quickly. Tire sub epithelial bladder is strong enough and persists for several days.

Cyst - cavity formation, lined with epithelium and connective tissue which has a shell. Content can be transparent or hemorrhagic.

Blister - the formation, resulting from acute papillary layer of limited swelling and protruding above the mucous membrane, has the shape of a flat hill, the color may be pale or red., Sizes from 0.2 to 1.5 cm can be of exogenous and endogenous origin.

Secondary morphological elements.

Erosion - a violation of the integrity of the surface layer of the epithelium heals without scarring.

AFTA - limited area of necrosis of the epithelium yellow - gray round or oval, measuring 0.2 - 0.5 cm or more. Surrounded by bright - red inflammatory rim. Heals without scarring.

Ulcer - necrosis, exciting all the layer of mucous membrane, and has a bottom edge. Heals with scar formation.

Tripe - replacement of differentiated tissue by connective tissue, there is a place of some primary or secondary elements.

Scales - dead skin separating plate epithelium.

Cork - shriveled exudate from the vesicle, erosions, ulcers. The color depends on the nature of fluid, usually located on the red border of the lips or near them.

Crack - a linear defect that occurs when a loss of tissue elasticity, usually located at the corners of the mouth and lips red border.

Abscess - cavity formation, filled with pus.

Atrophy - thinning of the mucosa.

Pigmentation - changing colors of tissue that occurs after inflammation.

It should be remembered that the morphological elements are not always pathognomonic, but in a complex patient studies are an important additional factor in diagnosis.

## **METHODS OF BUSINESS GAMES “ROUND TABLE”**

### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
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3. Blank sheets of paper and pens.

### **Progress:**

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6. Embarks on a circle that sheet.
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10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Options questions:**

1. Call the morphological elements infiltrated lesions

A: Spot - discoloration of the mucous membrane. The spots are small and large spills and limited, persistent and unstable. Characteristic of spots is that they are

not felt on palpation. Distinguish vascular, pigmented spots resulting from deposits in the mucosa of dyes. Vascular stains may result from a temporary reflex dilating the blood vessels and inflammation. Inflammatory spots can have different shades of red, with pressure on them, they always disappear and then reappear. Multiple small spots are called rosella large - erythematic. Stains resulting from persistent non-inflammatory enlargement of surface vessels or tumors, known as telangiectasias. Spots on the skin and mucous membranes may result from the integrity of the vascular wall (rupture, increased permeability) - hemorrhagic spots. The color of these spots do not disappear under pressure and as a function of time. Elapsed after hemorrhage, has different shades. Dot hemorrhages called petechiae, multiple hemorrhages of small size are called purport, large hemorrhages - ecchymosis.

Pigment spots are the result of congestion, or reduce, and sometimes complete lack of melanin pigment.

Lace - the formation in the epithelium due to acanthuses, acting over the surface of the mucosa. The surface of the nodules may be flat, conical or hemispherical, the shape of round or polygonal. The nodules can be of varying color and consistency. The quantity of millet grains knots or more, they may grow in size and coalesce to form plaques. The healing of nodules on their site no trace remains.

Node - the tight formation, originating in the sub mucosal layer. It is detected by palpation in the form of a dense infiltrate round. As the increases, he rises above the mucosal surface. Perhaps suppuration or ulceration of the site.

Bump - this infiltration education, exciting all the layers of the mucosa and rises above its surface, usually located tubercles are crowded and fast decay. In their place are formed ulcerated surface covered with granulation and vegetations. Heal with scar formation.

2. List the primary elements of defeat

A: Spot - discoloration of the mucous membrane. The spots are small and large spills and limited, persistent and unstable. Characteristic of spots is that they are not felt on palpation. Distinguish vascular, pigmented spots resulting from deposits in the mucosa of dyes. Vascular stains may result from a temporary reflex dilating the blood vessels and inflammation. Inflammatory spots can have different shades of red, with pressure on them, they always disappear and then reappear. Multiple small spots are called rosella large - erythematic. Stains resulting from persistent non-inflammatory enlargement of surface vessels or tumors, known as telangiectasias. Spots on the skin and mucous membranes may result from the integrity of the vascular wall (rupture, increased permeability) - hemorrhagic spots. The color of these spots does not disappear under pressure and as a function of time. Elapsed after hemorrhage, has different shades. Dot hemorrhages called petechiae, multiple hemorrhages of small size are called purport, large hemorrhages - ecchymosis.

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Pustule - cavity formation filled with purulent exudate.

Cyst - cavity formation, lined with epithelium and connective tissue which has a shell. Content can be transparent or hemorrhagic.

Blister - the formation, resulting from acute papillary layer of limited swelling and protruding above the mucous membrane, has the shape of a flat hill, the color may be pale or red., Sizes from 0.2 to 1.5 cm can be of exogenous and endogenous origin .

3. List the elements of secondary lesions

A: Erosion - a violation of the integrity of the surface layer of the epithelium heals without scarring.

AFTA - limited area of necrosis of the epithelium yellow - gray round or oval, measuring 0.2 - 0.5 cm or more. Surrounded by bright - red inflammatory rim. Heals without scarring.

Ulcer - necrosis, exciting all the layer of mucous membrane, and has a bottom edge. Heals with scar formation.

Tripe - replacement of differentiated tissue by connective tissue, there is a place of some primary or secondary elements.

Scales - dead skin separating plate epithelium.

Cork - shriveled exudate from the vesicle, erosions, ulcers. The color depends on the nature of fluid, usually located on the red border of the lips or near them.

Crack - a linear defect that occurs when a loss of tissue elasticity, usually located at the corners of the mouth and lips red border.

Abscess - cavity formation, filled with pus.

Atrophy - thinning of the mucosa.

Pigmentation - changing colors of tissue that occurs after inflammation.

4. What is spot? Give a description of the various spots

A: Spot - discoloration of the mucous membrane. The spots are small and large

spills and limited, persistent and unstable. Characteristic of spots is that they are not felt on palpation. Distinguish vascular, pigmented spots resulting from deposits in the mucosa of dyes. Vascular stains may result from a temporary reflex dilating the blood vessels and inflammation. Inflammatory spots can have different shades of red, with pressure on them, they always disappear and then reappear. Multiple small spots are called rosella large - erythematic. Stains resulting from persistent non-inflammatory enlargement of surface vessels or tumors, known as telangiectasias. Spots on the skin and mucous membranes may result from the integrity of the vascular wall (rupture, increased permeability) - hemorrhagic spots. The color of these spots does not disappear under pressure and as a function of time. Elapsed after hemorrhage, has different shades. Dot hemorrhages called petechiae, multiple hemorrhages of small size are called purport, large hemorrhages - ecchymosis.

Pigment spots are the result of congestion, or reduce, and sometimes complete lack of melanin pigment.

5. What is acantholysis?

Answer: This is a degenerative change in cells layer, reflected in the melting of intercellular cytoplasmic connections

6. Count the processes of mucosal increased cornification

A: Hyperkeratosis, excessive keratinization at the expense of the phenomena desquamation or enhanced production of cornified cells is the basis of hyperkeratosis

Parakeratosis violation of the process of keratinization, which is reflected in the incomplete keratinization of the surface layer of cells

## 6.2. ANALYTICAL PART

Case number 1 problem

The patient complains of 66 years discomfort in the mouth, arising after the imposition of the metal fillings in / \_6. An objective examination on the buckle mucosa patch notes at / \_6

1. Napishite tooth formula for WHO

A: / \_26

2. Sosudistye patches on the oral mucosa is not known

a) \* pustule

b) pithily

a) Purple

g) rosella

e) exanthema

3. The primary element of the lesions of the oral mucosa is

a) \* papule

b) erosion

b) the rumen

d) crack

e) the peel

4 The primary element of the lesions of the oral mucosa is

a) The bubble \*

- b) erosion
- b) the rumen
- d) crack
- e) the peel

5 The primary element of the lesions of the oral mucosa is

- a) blister \*
- b) erosion
- b) the rumen
- d) crack
- e) the peel

Situational problem number 2

. Patient 47 years complains of pain and burning sensation in the mouth, which appeared two days ago. Anamnesis revealed that in the last 2 years the patient periodically every 5-6 months to appear on the tongue. Healing of the AFL comes 10-12 days after emergence. The patient suffers from chronic gastritis.

1. What is the primary element in the defeat preceded after:

- a) Spot \*
- b) The nodule
- c) node
- d) tubercle
- e) the blister

2. Histological, aphthae is not detected:

- a) vasodilatation
- b) per vascular infiltration
- a) swelling of the epithelium thorny layer
- b) profound fibrin purulent necrotic inflammation
- e cells Ttsanka \*

3. What additional methods of examination is necessary to:

- a) immunoassay \*
- b) cytological \*
- a) Survey
- g) Inspection
- e) palpation

4. What is the basic method of examination to be held on:

- a) palpation \*
- b) The cytological
- c) the microbiological
- d) immunological
- e) The interrogation of the patient \*

Situational problem number 3

Patient V., aged 30, complained of the presence of a very painful AFL on the cheeks, lips and tongue, pain when eating. Anamnesis revealed that these aphthae are formed in the spring and fall.

Objective: the mucous membranes of the cheeks in the lower left 5 and 6 teeth on

the sides of the tongue, the mucosa of the lower lip there are some isolated aphthae 0.6-0.8, covered with dense fibrinous plaque sitting on the background of hyperemia of the oral mucosa, painful, soft on palpation.

1. At the gastro-intestinal disease form aphthae:

- A) covered with fibrous plaque.\*
- B) and meat color of blood
- B) coated bloom.
- D) coated with a touch of curd

2. AFTA is:

- A) tight formation
- B) The defect in all layers of the epithelium
- B) a linear defect
- D) shriveled exudate
- D) erosion oval, covered with fibrinous coating\*

3. For a general treatment as a means of non-specific sensitization of use:

- A) analgine
- B) tsiprolete
- B) lidocaine
- D) mepivokaine
- D)\* gist globulin

Situational problem № 4

A patient aged 34, appealed to the Department of the TS. Complaints: the growth in the mouth, chronic relapse, general weakness, malaise.

Of history: the patient suffers from 4 years old, permanent sputum sometimes with blood, is registered in the tuberculosis clinic.

Objective: At the oral mucosa are multiple scars, some of them form an element of inflammation of the sphere (hemisphere), painless size of a pinhead (1-3 mm diameter), soft, red or yellowish-red color, are prone to peripheral growth and merge with neighboring elements, which leads to the formation of various sizes and shapes of plaques.

1. What is the primary element of the oral mucosa has been described in tuberculosis:

- A) naphtha
- B) an ulcer.
- B) spot
- D) hillock\*
- D) nodule

2. What is the secondary element of the oral mucosa is the patient

- A) bubble
- B) scar\*
- B) tubercle
- D) plaque.
- E) stain

3. What are the layers of the oral mucosa captures tubercle:

- A) the epithelium
- B) The proper mucous plate.
- B) sub mucosal layer
- D) muscle
- D) a, b, \*

### 6.3. The practical part

Manual Skill "Methods of examination of patients with diseases of the oral mucosa."

Purpose: To teach students the methods of examination of patients with diseases of the oral mucosa.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

Execution of manual skills:

No	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	Properly inspect the oral cavity	0	10	20
5.	Palpatethe salivaryglands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Call the morphological elements infiltrated lesions
2. What are the elements of exudative lesions
3. List the primary elements of defeat
4. List the elements of secondary lesions
5. What is the stain, allow characterization of the various spots
6. What is the ballooning degeneration

## LESSON № 4

**THEME: «Mechanical injuries of oral mucosa. Clinics.Diagnosis.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

- To teach students the methods of diagnosis of mechanical injury,
- To introduce the etiological factors of acute and chronic mechanical trauma.
- To teach the students ability to characterize the clinical picture of mechanical trauma,
- Train the differential diagnosis,
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of mechanical injury.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- Types of mechanical trauma,
- The cause of acute and chronic mechanical trauma
- The various clinical manifestations of acute and chronic mechanical trauma
- Treatment of acute and chronic mechanical trauma

##### ***The student should be able to do:***

- Inspection and palpation of the affected area
- Determine the nature of defeat, depending on the traumatic factor
- Elimination of acute and chronic traumatic factor
- Application of the defeat of anesthesia
- Antiseptic
- Application of antibacterial agents in an element of defeat
- Application of the element defeat
- When using a physical method to properly connect the device,
- The chemical method to choose the right products.

## 4. MOTIVATION

Knowledge of different methods of treatment of acute and chronic mechanical trauma is important in the prevention and treatment of mechanical injuries. Necessary to safely carry out all stages of treatment of mechanical injury, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

The reasons for the development of mechanical trauma. Acute mechanical trauma is the result of strike, bite, wound or cutting with a sharp object. Injury may mucosal epithelium integrity violation, which leads to ulceration or erosion, or there is interstitial hemorrhage without compromising the integrity of the epithelium (hematoma). The erosion around the developing inflammatory response with infiltration of the localized nature of the mucous membrane itself.

Cause of chronic mechanical trauma may be prolonged mucosal trauma sharp edges of teeth, poorly-made prostheses or obsolete, located outside the arc teeth. Traumatic factors may be overhanging edges of fillings, wire splints or splinting of the jaws with ligatures, bad habits. Inadequate stimulus of the oral mucosa can be any orthopedic or orthodontic design: removable prosthesis, the intermediate part of the bridge, artificial crowns. Mechanical injury of the mucous membrane is often associated with teething, biting cheeks, tongue, lips, as determined by the set of scars on the oral mucosa, infants, lured from the nipples larger.

The clinical picture of mechanical trauma. In acute mechanical trauma indicated a slight soreness at the site of interstitial hemorrhage. For 1-3 days later revealed bruising bluish-black. If the damage of the epithelium formed a painful erosion, infiltrated the base, which is usually rapidly epithelialized. In the case of secondary infection may move erosion in nonhealing ulcers.

Changes in the mucous membrane in chronic injuries may for a long time not to

disturb the patient. There is a sense of embarrassment, discomfort, minor pain, swelling. On examination revealed catarrhal mucous membrane inflammation (swelling, redness), violation of its integrity (erosion, ulcer), proliferative changes (hypertrophy gingival papillae, gingival margin), hypertrophy of the papillae of language such as papillomatosis, increased cornification (leukoplakia).

Diagnosis and differential diagnosis of mechanical trauma. Diagnosis of acute mechanical trauma is not easy to diagnose in collecting history.

Chronic mechanical trauma is necessary to distinguish a cancer, tubercular ulcers, syphilitic ulcers, chronic necrotizing gingivostomatitis Vincent, tropic ulcers.

Removal of the traumatic factor is also a differential diagnostic purposes. Quickly, a few days, ulcer healing indicating its traumatic origin.

Treatment of mechanical injuries. Treatment of acute mechanical trauma depends on the depth and size of lesions. With bruises, erosions, and small wounds, antiseptic treatment (0.5-1% solution of hydrogen peroxide, 0.5% p-p etoniya, 1% solution Dimexidum). With deep trauma superimposed seams.

Treatment of chronic mechanical trauma is reduced to remove the stimulus, antisepsis, applications funds, conducting dental health.

Naphtha - a chronic mechanical trauma in the absence of treatment. It is painful, especially when eating, talking. The edges of the ulcer hyperemic and painful on palpation, the bottom is covered with necrotic plaque. Different depth - down to the muscle layer. The regional nodes are enlarged, movable, painful on palpation. An ulcer may be complicated fuzospirohetozom or candidiasis, with prolonged duration (2-3 months or more) can be qualified.

## **METHODS OF BUSINESS GAMES**

### **“ROUND TABLE”**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper, pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.

10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

Options questions:

1. Describe hematoma. The answer. Hematoma can occur as a result of biting or injury (stroke) of the mucosa. When interstitial hemorrhage at the injury site indicated soreness that disappears after 1-3 days, or hematoma formed bluish-black, pea-sized or more
2. Describe the erosion and wound. The answer. If the damage of the epithelium formed a painful bruise (erosion) around which there is limited inflammation with infiltration of the mucous membrane itself. If the site of damage is not subject to re-injury, the bruise quickly epithelialized.  
If the damage the entire thickness of the mucous membrane formed wounds. Wounds can be chopped, cut, torn, bitten, bruised, mixed (stab and cut, tear-bruises, etc.). Wounds are a group of open injuries. The mucous membrane of the oral pain, bleeding and dehiscence.
3. What is acute catarrh? The answer. In chronic injury occurs catarrh: redness, swelling with infiltration, proliferation. Acute inflammation lasts 10-14 days and eliminating the stimulus passes quickly. When purulent exudate mucosa exposed to surface damage. Removal of the stimulus and the initial treatment lead to rapid elimination of lesions
4. What is chronic catarrh? The answer. If untreated, chronic suppurative inflammation with the formation of a limited focus, consisting of purulent molten mass, resulting in a sore
5. What is hyperkeratosis? The answer. Hyperkeratosis. Long slightly annoyed by bad denture can lead to changes such as leukoplakia, hyperkeratosis
6. Describe lobed fibers. The answer. Lobed fibroma-dense tumor-like formations, in which the edge of the prosthesis is being introduced. In place of the edge of the prosthesis wrinkled surface with a linear ulcer or erosion. Epithelialized ulcer, if not use a prosthesis. If you wear dentures, it again recurs. Chronic injury margin prosthesis can lead to several folds, parallel to the edge prosthesis. Lobed fibroma may exist for many years. Treatment consists of correction of the prosthesis or termination of wearing it. After 2-3 weeks, excised lobed fibers and produce a new prosthesis
7. Describe hyperplasia. The answer. hyperplasia soft-grained bright red surface develops against the background of a diffuse or just around the openings of small ducts of salivary glands in the back of the palate with long-term poor denture wearing (usually on the upper jaw). The treatment is to stop wearing a defective prosthesis and making better

8. What is the usual biting? The answer. Habitual biting of the mucous membrane, chronic damage through the closing of the teeth and the surrounding areas, available bite. The mucous membrane swollen, has a whitish, macerated, peeling the surface (like moth-eaten). The epithelium is removed. No pain. Neuropathy observed among young adults (high school students, college students).

## **6.2. ANALYTICAL PART**

Drawing on diaries, "The structural characteristics of the oral mucosa":

1. Venn diagram
2. Categorical table.

Case number 1 problem

In the entrance of the house was attacked by a citizen, NS robbery. Arriving at the scene on call emergency doctor found the victim unconscious. The victim observed the wound of the upper lip, from which blood oozed scarlet color. Skin pale. Pulse 100 beats per minute.

1. Place a diagnosis
2. Choose a method of treatment.

The answer. Acute mechanical injury in violation of the integrity of the oral mucosa. Laceration. Necessary to make suturing wounds and antiseptic.

Situational problem number 2

During the meal the patient accidentally bit my tongue. Notes pain on movement of the language and eating. Objective: to the left side of the tongue has a bruise the size of 0.5 x 0.5 cm 1.

1. Place a diagnosis
2. Choose a method of treatment.

The answer. Acute mechanical trauma without compromising the integrity of the oral mucosa. Need to give advice, antiseptic mouthwashes and monitoring hematoma.

Situational problem number 3

The patient left cheek on the AP in the molars have an ulcer measuring 1 x 1 cm to infiltrate and painful edges, covered with gray - yellow easily removable coating. The upper left tooth is 8 outside the arc, has sharp cusps.

1. Postavte diagnosis.
2. Select a method of treatment.

The answer. The ulcer that is necessary to eliminate the cause of ulcers. Carry antiseptic, application for an ulcer funds.

Situational problem № 4

. Patient C. 20 years, turned to the dentist complaining of pain in the language. History of 3 days ago and ate a fish bone pricked. When viewed from the side surface of the tongue on the left there is a defect of the mucous membrane of 1 x 1 cm with irregular edges, covered with gray - yellow.

1. Place a diagnosis.
2. Choose a method of treatment.

The answer. Acute mechanical stab injury. Necessary to carry out antiseptic appliqué keratoplasty.

Situational problem number 5

During the baseline medical examination in a patient on the right cheek AM through interdigitation found a shallow ulcer with jagged edges slightly thickened, painful and covered with a yellowish tinge. The patient has a cross bite, and he often bites this area of the cheek.

1. Place a diagnosis.
2. Spend treatment.
3. Your continued tactics.

The answer. The ulcer. Necessary to eliminate the cause of ulcers. Carry antiseptic, application for an ulcer funds. Recommend a treatment with an orthodontist, a dentist.

Situational problem number 6

Male 62 years appealed to the dentist complaining of pain in the right cheek when wearing the prosthesis. When viewed from the upper jaw is partially removable prosthesis seating for the sixth tooth. In the clamp is erosion of the mucous membrane, covered with gray - white bloom.

1. Place a diagnosis.
2. Spend treatment.
3. Your continued tactics.

The answer. Mechanical injury from a violation of the oral mucosa. Necessary to eliminate the cause of ulcers. Carry antiseptic, application to the erosion of Consult a podiatrist, dentist for correction of the prosthesis.

Situational problem number 7

Patient A. 26 years old admitted to hospital with dental surgery oral - facial trauma. When viewed from the oral cavity revealed many carious teeth broken, and on the buckle mucosa - bleeding, painful, shallow ulcers on the basis of hyperemic and covered with gray - white bloom.

1. Place a diagnosis.
2. Spend treatment.

The answer. Contused Acute mechanical trauma. Treatment: removal of decayed teeth, antiseptic processing, application keratoplasty.

Situational problem number 8

Patient N. 54 addressed to the dentist complaining of discomfort, pain when eating and bleeding in the lower six teeth on the right, covered with an artificial crown. On examination, marked redness, swelling and bleeding of the gums in the lower six teeth on the right, long and deep crown comes under the gum.

1. Place a diagnosis.
2. Spend treatment.

The answer. Chronic mechanical trauma. Necessary to antiseptic and appliqué..

Tests

1. Element damage in acute mechanical injury.
  - a) The wound
  - b) the ulcer
  - c) node
  - d) bubble
  - e) the peel

the correct answer and 1.

2. Treatment begins with the injury:

- a) eliminate the traumatic factor
- b) The application
- c) application keratolytics
- d) excision of the ulcer
- d) with oral sedation

the correct answer and 2.

3. Acute mechanical trauma of the oral mucosa is:

- a) The wound
- b) the ulcer
- c) increased cornification
- d) proliferation of the epithelium
- e) the peel

the correct answer and 3.

4. Select the appropriate elements of defeat:

- 1) acute mechanical trauma
- 2) chronic mechanical trauma
- a) injury, b) the hematoma,
- g) ulcer, d) erosion,
- e) hypertrophic gingivitis

the correct answer :1-a, b, d ,2-d, f.

5. Select appropriate drugs for the treatment of mechanical injuries:

- 1keroplasts
- 2) antisepsis
- a) balsam

the correct answer 1 a, b, 2-in, Mr.

6. The ulcer differentiate with:

- a) The tropic ulcer
- a) Bowen's disease
- d) leukoplakia
- e) no correct answer

the correct answer and 6.

7. Hyperplasia is

- a) soft granular bright red surface
- b) the surface of the oral mucosa as a moth-eaten
- c) a dense tumor formation
- d) Acute mechanical trauma.
- e) galvanism

the correct answer and 7.

8. The cause of fibroids is lobed:

- a) prolonged stimulation edge of the prosthesis
- b) stimulation of the oral mucosa under the denture
- a) hyperkeratosis
- g) the impact of the fungus Candida species

e) chemical damage  
the correct answer and 8.

### 6.3. The practical part

Manual skill

Treatment of teeth with hyperesthesia.

Purpose: To teach students treat hyperesthesia

Testimony. Removal of dental hyperesthesia

Equipment: Dental Instruments, Fluor Protector, a brush, cotton swab, a brush to remove dental plaque.

Execution of manual skill:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Defining a hyperesthesia of teeth	0	10	20
2	Removing the plaque from the tooth brush	0	10	30
3.	Insulate the tooth from saliva with cotton rolls, dried	0	10	10
4.	Using a special brush to cover all surfaces of the teeth with Fluor Protector hyperesthesia	0	10	30
5.	Dry the teeth with the aid of air	0	10	5
6.	To give advice			5
	Total:	0	50	100

### 10. Study Questions

1. Causes of acute mechanical damage to the oral mucosa.
2. Causes of chronic mechanical damage of the oral mucosa.
3. Clinical manifestations of acute mechanical trauma of the oral mucosa.
4. Clinical manifestations of chronic mechanical trauma of the oral mucosa.
5. Differential diagnosis of mechanical damage to the oral mucosa.
6. Treatment of acute mechanical trauma of the oral mucosa.
7. Treatment of chronic mechanical trauma of the oral mucosa.
8. Describe ulcers.

## LESSON № 5

**THEME: «Physical injuries of oral mucosa. Clinics.Diagnosis.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

The Number of hours - 390 minutes

### 3. THE PURPOSE OF THE SESSION

- To teach students methods of diagnosing physical injuries,
- To introduce the etiological factors of acute and chronic physical injury.
- To teach the students ability to characterize the clinical picture of physical injury,
- Train the differential diagnosis,
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of physical injury.
- Teach them the proper execution of manual skills step by step.

### **Tasks:**

#### ***The student should know:***

- Types of physical trauma,
- The cause of acute and chronic physical injury
- The various clinical manifestations of acute and chronic physical injury
- Treatment of acute and chronic physical injury

#### ***The student should be able to do:***

- Inspection and palpation of the lesion area
- Determine the nature of defeat, depending on the traumatic factor
- Elimination of acute and chronic traumatic factor
- Application of the defeat of anesthesia
- Antiseptic
- Application of antibacterial agents in an element of defeat
- Application of the element defeat
- When using a physical method of treatment to properly connect the device

## 4. MOTIVATION

Knowledge of different methods of treatment of acute and chronic physical injury is important in the prevention and treatment of physical injuries. Necessary to safely carry out all stages of treatment of physical injury, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

This category includes damage to the oral mucosa that develops under the influence of factors such as high and low temperature. Beam energy, electric and galvanic currents.

Thermal injuries can occur in accidents in the home and at work.

In acute injury (burn) the mucous membrane of hot steam, hot water, (in dentistry) the degree of damage depends on the temperature and duration of exposure to the agent: its impact on the area formed by varying degrees of burns from catarrh until the blisters, erosions, ulcers. At the moment of impact the patient has severe pain, which gradually passes and only the sensation of roughness, tightness of the mucosa. Lacerative epithelium is torn away, and beneath it exposed the painful erosion. Reactive inflammation may extend beyond the damaged area. Secondary infection and the impact of local traumatic factors may complicate and slow epithelization.

In recent years, increasing use of dentistry with the purpose of treatment low temperatures - kriometody. Clinical - experimental studies showing that short but deep tissue cooling with liquid nitrogen mucosal necrosis surface layers of the mucosa. Necrotic tissue is separated from the surrounding healthy mucosa narrow rim of hyperemia. Sloughing begins at 5 - 6 per day. Epithelization foci of necrotic frostbite occurs under the film and ends at 12 - 16 day. By this time, the mucous becomes a normal color, smooth, shiny. The process ends with the formation of scar barely noticeable.

The treatment of thermal burns involves the use of drugs that eliminate the

inflammation that have mucolytic action to prevent possible complications of aseptic necrosis of the accession of infection, stimulate the regeneration of the mucous membrane. In applying cryodestruction with curative intent to prevent damage to adjacent healthy tissue is recommended to use different cryoprotectants. The simplest of them are indifferent ointment coating.

The reason for the defeat of the oral mucosa may be an electric current. Electrical accident can take place in industry, agriculture, domestic violence, the treatment in the physiotherapy room and even a doctor - dentist, if the equipment is not grounded. The share of electric shock is very small. It is considered the most dangerous alternating current. Electric shock occurs when tissue damage similar to thermal burns are characterized by high temperature. Such severe burns, deep tissue damage and an extensive area. After exclusion of necrotic tissue formed deep ulcers with dirty - gray necrotic plaque on the bottom: they are poorly or not. Treatment is carried out is the same as for other injuries.

Chronic physical trauma to the oral mucosa usually caused by prolonged exposure to low doses of galvanic currents produced in the mouth in the presence of dissimilar metals, and ionizing radiation.

Dentist fairly frequently have to deal with manifestations of galvanism of the oral mucosa.

The first mention of micro-produced in the mouth, refer to the end of the last century. Many authors have the cause of these currents is seen in the presence of oral prostheses and metal seals. The first measurement of the potential difference between metal factors in the oral cavity produced Sikora (1929), applying for the galvanometer. Lippmann (1930) measured in the oral cavity microcurrents microammeter, which is used for these purposes today.

MF Marey (1952), A. Vyssotsky (1962), V. Yu Kurland et al. (1968) showed that the presence in the oral cavity steel crowns and bridges may be responsible for the development of pathological symptoms, known as galvanism. Some patients complain of a prosthesis after the change in taste, impaired salivation (dryness or excessive salivation). Sometimes there are burning the mucous membrane of the tongue, palate, cheeks, and sometimes nausea and even vomiting. These sensations are usually worse in the evening, after smoking, but when eating disappear. Described feeling some pretty persistent and disappear only after the removal of metal implants, or replacing them with plastic or gold. Some patients suffering from galvanism, mucosa adjacent to the steel prosthesis, hyperemic, edematous, and sometimes erode and even ulcerated.

In the first days after prosthesis steel implants in lime with metal seals micro size was 20 - 90 UA. In the future strength of the current was gradually decreased and after a year, according to VA Khvatova equal to 7-20 mA. After removing the steel prosthesis or replace them, a decrease of magnitude of micro to 0 - 3 mA and the disappearance of discomfort.

Bator VI (1968) indicates that the maximum current observed in the presence of oral steel solder and copper amalgam fillings out. The author points out that there is no direct relationship between the magnitude and severity of micro-subjective perceptions.

Galvanism should be differentiated from glossalgii, allergic reactions of the oral mucosa. In this important history and measurement of the micro in the mouth.

T. Nikitina and MA Tuhtabaeva (1980) developed an instrument - "Galvanotest", which ensures the accuracy of the potentials of the mouth.

Treatment consists of replacement of the prosthesis made of stainless steel to gold, metallic seals must also be replaced. When changes of the mucous membrane - painkillers and anti-inflammatory treatment.

Radiation damage can occur when a careless handling of radioactive substances, as well as X-ray and radiotherapy of tumors maxillo - facial area. The action of radiation on there local radiation response of oral mucosa. Tissue reaction to irradiation depends on the type of therapy (distance, short-, interstitial), single and total dose radiation sensitivity of tissues, as well as on the condition of the oral cavity before irradiation. It may be limited (for short-and interstitial gamma - therapy), or capture the whole mucous membrane (for remote methods of irradiation). Radiation reaction of the oral mucosa GM Barer offers call. The reaction of the oral mucosa to irradiation has gradually developed the clinical features at different sites. The first clinical signs of mucosal conditions found in areas where no keratinous epithelium. GM Barer distinguishes the following stages of development radiomukozita: 1) swelling and redness;

2) The mucosa becomes cloudy, thickened, comes epidermidalization, the picture resembles leukoplakia or lichen planus;

3) desquamation of the epithelium - horny epithelium is rejected;

4) focal membranous radiomukozit - there are erosion, covered fibrinous coating;

5) Drain filmy radiomukozit - necrotizing process distributed widely and formed erosions and ulcers covered fibrin coating;

6) epithelialization of erosions:

7) The residual effects - swelling, redness, atrophy, telangiectasia.

In the mouth is not sanitized radiation reaction is more severe, earlier developed in the mucosa adjacent to a metal prosthesis, and amalgam fillings.

The mucous membrane of the soft palate, cheeks, floor of the mouth are most sensitive to radiation effects and processes it develops more rapidly in the earlier periods, and generally do not mucosal keratinization. Lots keratinizing mucosa (hard palate, gums, back of the tongue) and less sensative reaction proceeds calmly here and be expressed in congestion, enhance keratinization, foci rarely formed membranous radiomukosite.

Mucosa due to good blood supply and regenerative capacity relative to fully restore their functions, but it happens slowly and at different times. Therefore, various dental procedures, causing additional injury of the mucous can lead to severe complications - radiation ulcer, which is characterized by a progressive course with the spread of the underlying tissues, the lack of ability to self-healing and resistance to drug therapy. Radiation ulcer may have different sizes and depths. Its edges are well defined, compact, often rounded inside bottom is covered with a dense necrotic plaque. Strong persistent pain, which explains the radial

neuritis. The Patients suffering from insomnia, irritable, lose weight, depressed mind. Often, radiation ulcers develop on the site of healed or tumors in the tissues surrounding the tumor, so it is important to determine the nature of the ulcer (ulcer of radiation or tumor recurrence). For this purpose cytology.

The reaction of submandibular lymph nodes in radiation stomatitis seen immediately. Regional lymph nodes increase in size and become painful after 7-10 days after the development of radiomukosite. During this period the patient's condition deteriorates.

During the period of maximum development of the change of the oral mucosa sialoschisis (suppression of salivary glands), dry mouth, mucosal dysphasia and loss of taste. Violated the processes of digestion in the mouth of the - for the reduction of enzyme activity of saliva (N. Uspensky et al., 1957 S. Latisha, 1967, etc.), changing the concentration of hydrogen ions (pH), the viscosity of saliva. It should be noted that changes in the oral cavity can be observed in patients who underwent irradiation of the abdomen, chest and pelvis. These changes result from the use of higher doses of radiation at a later date and background of pronounced general symptoms (malaise, fatigue, sleep disturbance, loss of appetite). The treatment effects and complications should be directed at improving the oral mucosa body, reducing the permeability of the tissue, as well as addressing the factors that influence (trauma, infection, etc.) on the oral mucosa. It is advisable the appointment of a routine, nicotinic acid, aecia, vitamin B12, calcium supplementation, in patients with severe inflammation - a small dose of corticosteroids. For the initial manifestations of radiation reaction, reducing the appearance of dryness and taste are recommended rinsing the mouth with warm water, treatment of gum weak antiseptic solution (1% solution of hydrogen peroxide, 1:5000, 2% solution of boric acid, etc.). Performed dental health - local irritating factors are eliminated, sharp edges of teeth, dentures are removed, injuring the mucous membrane, prohibits smoking, alcohol and irritating foods. At the height of the radiation reaction pathological tooth - gum pockets were washed with antiseptics, mucosal smear 1% alcoholic solution of citral in peach oil, sea buckthorn or other vegetable oils. When the reactions effectively use applications of corticosteroid creams and ointments. For anesthesia using 1% solution of Novocain or trimekaina, 0.5 - 1% solution dikaina, 10% suspension in glycerol anesteziina. In the midst of counter-reaction removal of teeth and dental plaque, gum pockets curettage and cautery use. Difficulties is the treatment of radiation ulcers. It is advisable to use ointments with propolis, coniferous - carotene paste, application of vitamin B12 (for 1.5-2 months). When conservative treatment is not effective radiation ulcer removed surgically.

The prevention of radiation reaction of the oral mucosa before radiation therapy requires careful readjustment of the mouth and taking a patient care record. Remediation is conducted in the following sequence:

- 1) Remove the mobile and broken teeth;
- 2) A thorough removal of dental plaque;
- 3) Filling of carious teeth or cements composites.

In the presence of metal crowns in a patient in order to avoid secondary radiation GM Barer offered to put on these plastic teeth tray.

Currently, much attention is paid to agents, inhibits the radiochemical reactions in the body. These include products of glucose, sodium hyposulphite, ethanol, paraaminopropiofena.

For the prevention of radiation sickness drugs used organic compounds containing sulfur (cystamine, mercamine hydrochloride) is prescribed steroids and antihistamines. To stimulate the blood-forming organs prescribe vitamin B6, folic acid, kampilon blood transfusions.

### **Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, The Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.

14. Work remains resident teachers
15. The analysis of responses.

Application Control and questions for review:

1. Galvanism. Differential diagnosis. Answer: Glossily, allergic reaction.
2. Preparation of the oral cavity to radiation therapy. Answer: 1).Removal of decayed teeth for 5 days prior to radiotherapy terrapin. Ranusew. 2). Removal of over-and tartar.3). Treatment of carious teeth, the removal or covering of rubber or plastic seals and kappa metal prostheses. You can use gauze and cotton balls with petroleum jelly or Novocain.
3. Chronic radiation sickness. The clinic. A: Gradually increases dryness, catarrhal-resistant ulcerative gingivitis, glossalgia, glossaries, radiation periodontitis.
4. List periods of radiation sickness. A: The first-time primary reactions, the second latent, a third-period marked clinical phenomena, the height of the disease, the fourth-recovery.
5. With a current strength of galvanism occurs in the mouth? Answer: With a current above 10 PA.
6. Differential diagnosis of radiation ulcers. Answer: With a cancerous ulcer, tumor recurrence.
7. The cause of thermal burns in the dental office. A: electrophoresis, electrocoagulation.
8. The clinical picture of radiation stomatitis. Answer: There is an out of the hemorrhagic syndrome and necrotizing process.

## 6.2. ANALYTICAL PART

Situational tasks № 1

The patient turned 26 years old to the dentist complaining of severe pain in the palate, poor eating, feeling the roughness of the mucosa. When viewed in the hard palate there is erosion on the basis of hyperemic and edematous with epithelial fragments. Nicholas negative symptom.

- 1) Put the diagnosis:
  - a) thermal burn
  - b) ulcer
  - c) radiation sickness,
  - g) galvanism,
  - e) chemical burn;
- 2) cause thermal burn may be:
  - a) hot food
  - b) electrocoagulation
  - c) the use of NASA
  - g) Work in flour mills
  - d) work at a chemical plant;

- 3) that may develop during thermal burn:
- acute catarrhal stomatitis
  - chronic catarrhal stomatitis
  - ulcer - necrotizing stomatitis
  - allergic stomatitis
  - HRAS;
- 4) What elements are formed during thermal burn:
- blisters, erosions
  - naphtha, ulcers
  - blisters, scars
  - ulcers, crusts
  - cracked, abscess;
- 5) in the tactics of your treatment does not include:
- antiviral ointment
  - ointment analgesia
  - the removal of plaque and bits of epithelium
  - antibacterial
  - keratoplasty.

The correct answer :1-a .2-a ,3-a ,4-a ,5-a.

#### Situational tasks № 2

Patient 44 years old went to a doctor complaining of a metallic taste and burning sensation in the tongue and cheeks. On examination of the oral mucosa entire hyperemic and edematous. In the oral cavity revealed bridges of different metals: steel, titanium and gold.

- Put the diagnosis: a) galvanism b) radiation sickness in) ulcer d) leukoplakia e) steam burn;
- conduct a differential diagnosis: a) liver and gall bladder b) candidacies in) Pemphigus d) spleen disease e) CVD;
- occurs when there is galvanism in the oral cavity: a) dissimilar metals b) of decayed teeth in) the absence of teeth d) complete dentures e) composite fillings;
- may contribute to the development of galvanism in the oral cavity: a) b leukoplakia) in HRAS) MEE g) pemphigus d) candidiasis
- Your treatment strategy: a) removal of metal prostheses b) Treatment of oral antiseptics c) application of ointments ceratoplastic d) application of antibiotics d) physiotherapy.

The correct answer :1-a ,2-a ,3-a ,4-a ,5-a.

#### Case studies number 3

The patient had 26 complaints of dryness in the mouth, decreased taste sensitivity, burning, painful meal. On examination, oral mucosa, lips, hyperemic, edematous, enlarged tonsils, gingival papillae loose, sometimes eroded and necrotic. Anamnesis: took a course R - therapy for the treatment of gastric tumors.

- Put the diagnosis: a) radiation sickness b) in galvanism) chemical burn d)

thermal burn d) scarlet fever;

2) specify the stage of the process: a) Acute b) Chronic c) remission g) heat d) sub-acute;

3) I do not have radiation sickness period: a) the extinction b) of the primary reactions) latent g) expressed clinical phenomena e) heal;

4) with hemorrhagic diathesis observed: a) hemorrhage, hemorrhage, b) in bruises) hematoma d) ecchymosed e) spots;

5) in the general treatment does not include: a) b ceratoplasty), antihistamines), vitamin d) Corticosteroids d) blood transfusion.

The correct answer :1-a ,2-a ,3-a ,4-a ,5-a.

#### Case studies № 4

Patient 16 years old, complained of pain, the roughness of the oral mucosa, difficulty in eating and speech.

Of history: the night before the patient, the procedure carried out on their own steam inhalation.

OBJECTIVE: There is an acute catarrhal stomatitis. The epithelium of the mucous membranes of the mouth partially or completely macerated, exfoliated layers, there are bubbles, some of which opened.

1. Put a diagnosed

A: Burn with hot steam

2. What is the secondary element is formed on the site of the bladder:  
and. erosion \*

b. scar

in. crack

Mr. ulcer \*

on scale.

3. What remedial measures should be

and. anesthetic applique \*

b. antiseptic treatment \*

in. applique ceratoplasty \*

cryotherapy, the

on excision of damaged tissues

#### TESTS

1. Physical injury is:

a) \* galvanism

b) acid burn

c) an alkali burn

d) wound

e) the hematoma

2. Physical injury is not:

a) necrosis \*

b) galvanism

- c) the thermal lesion
  - d) the radiation damage
  - e) electrical accident
3. Galvanism occurs in the presence of the oral cavity:
- a) dissimilar metals \*
  - b) decayed teeth
  - c) the absence of teeth
  - d) complete dentures
  - e) composite fillings
4. Galvanism may contribute to the development of the oral cavity:
- a) \* leukoplakia
  - b) HRAS
  - c) MEE
  - g) pemphigus
  - d) candidiasis
5. Galvanism may contribute to the development of the oral cavity:
- a) CPL \*
  - b) HRAS
  - c) MEE
  - d) candidiasis
  - e) The diamond-shaped glossitis
6. The cause thermal burn may be:
- a) hot food \*
  - b) galvanism
  - c) the use of NASA
  - g) Work at a chemical plant
  - e) work on the milling plant
7. For radiation ulcers are characterized by:
- a) constant pain \*
  - b) sign mildew
  - a) rapid epithelialization
  - d) absence of pain
  - e) the small size
8. Radiation ulcer differentiated from:
- a) tumor recurrence \*
  - b) Foot and Mouth Disease
  - c) erosive stomatitis
  - g) of erosive - ulcerous forms of CPL
  - e) The chancre

The correct answer :1-a ,2-a ,3-a ,4-a ,5-a, 6a, 7a, 8a ..

9 galvanism differentiated from:

- a. glossalgii \*
- b. allergic reaction to the oral mucosa \*
- c. candidiasis

d. trophic ulcers  
e. tuberculous ulcers  
10. Physical injury can occur when exposed to:

- a. beam energy \*
- b. low temperature \*
- c. acid
- d. alkali
- e. acute boron

11. The cause thermal burn may be:

- a. hot food \*
- b. electrocoagulator \*
- c. the use of NASA
- d. work at a chemical plant
- e. work on the milling plant

12. For radiation ulcers are characterized by:

- a. Constant pain \*
- b. progressive course \*
- c. rapid epithelialization
- d. no pain
- e. small size

13. Radiation ulcer differentiated from:

- a. tumor recurrence \*
- b. cancerous ulcer \*
- c. erosive stomatitis
- d. erosive - ulcerous forms of CPL
- e. chancre

14 Fizicheskaya injury can occur when exposed to:

- a) The electric current \*
- c) acute boron
- c) the beam energy \*
- d) acid
- e) a low temperature \*

### **6.3. The practical part**

Purpose: To teach students of the local treatment of the lesion of the oral mucosa

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment of the lesion of the oral mucosa  
Manual studies. Local treatment of the affected area of the oral mucosa "

1. Wearing safety goggles, rubber gloves, gauze mask
2. Application of anesthesia failure.
3. Antiseptic treatment.
4. Application of antibacterial agents in an element of defeat.
5. Application funds.

Execution of manual skills. (in steps)

"Topical treatment of the lesion of the oral mucosa."

Execution of manual skill:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauzmask.	0	10	20
2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20
4.	Application of antibiotics: application of an ointment on a cotton ball, fixing it to the affected area	0	10	20
5.	Ceroplastic Application : application solkoserila on a cotton ball and fixing it on the affected area	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Causes of acute physical damage of the oral mucosa.
2. Causes of chronic physical damage of the oral mucosa.
3. Clinical manifestations of thermal manifestations of the oral mucosa.
4. Factors causing oral galvanism.
5. Treatment of galvanism.
6. The reaction of the oral mucosa in radiotherapy of neoplasms of the maxillofacial area.
7. Radiation ulcer. The clinic. Treatment.
8. Preventing physical damage to the mouth.

## LESSON № 6

**THEME: «Chemical injuries of oral mucosa. Clinics.Diagnosis.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

- To teach students the methods of diagnosis of chemical injuries
- To introduce the etiological factors of acute and chronic chemical injury.
- To teach the students ability to characterize the clinical picture of the chemical injury,
- Train the differential diagnosis,
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of chemical injuries.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- Types of mechanical trauma,
- The cause of acute and chronic chemical injury
- The various clinical manifestations of acute and chronic chemical injury
- Treatment of acute and chronic chemical injury

##### ***The student should be able to do:***

- Inspection and palpation of the lesion area
- Determine the nature of defeat, depending on the traumatic factor
- Elimination of acute and chronic traumatic factor
- Neutralization of the traumatic factor
- Application of the defeat of anesthesia
- Antiseptic
- Application of antibacterial agents in an element of defeat
- Application of the element defeat
- When using a physical method of treatment to properly connect the device

## 4. MOTIVATION

Knowledge of different methods of treatment of acute and chronic physical injury is important in the prevention and treatment of physical injuries. Necessary to safely carry out all stages of treatment of physical injury, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Chemical damage to the oral mucosa may occur in hit in the mouth of concentrated acids, alkalis, and substances used in the treatment of teeth (30% solution of silver nitrate, phenol, formaldehyde, arsenic acid, etc.). excess monomer in the poorly polymerized plastic prosthesis, as well as chemical plants, laboratories, etc. The severity of chemical burns depends on the number and type of chemical substances on the concentration and exposure time.

Chemical trauma of the oral mucosa, as well as other injuries can be acute (cross impact a large concentration of a substance) and chronic (long-term effects of small concentrations of substances).

In the acute chemical trauma of necrosis of the epithelium and underlying tissues. acids cause coagulation necrosis in which necrotic film tightly connected to the underlying tissues and is against the background of a pronounced inflammatory process. Alkali leads to scorch necrosis. Necrotic tissue become consistency lesion is deeper and more severe than a burn an acid.

Queen RM Lyubimov, and LA (1974) distinguish three periods of chemical burn of the oral mucosa. Under the influence of the chemical initially developed the acute phase, during which a general toxic phenomena are significant, and local - appear smaller. In the 2nd period (6-10 days) in the general toxic effects congenial

subside, but changes in the mucous worse. The 3 period is epithelialization or scarring (with deep lesions).

Severe burns due to the nerve receptors of the oral mucosa in a period was almost painless, so patients do not seek medical attention immediately, but only in the 2nd period - in the midst of changes in the oral cavity. Usually more affected lips, tongue, the distal part of the oral cavity. Depending on the degree burns occur catarrh, focal necrosis or extensive necrosis of the mucosa.

In chronic injury suffered general condition of the patient: headache, fatigue, irritability, poor sleep and appetite.

Oral mucosa edematous, congestive hyperemia, thinned, cloudy, with symptoms of hyperkeratosis. Typically, such changes were observed in workers of chemical plants, where no attention is paid to eliminate occupational exposures. And you can watch a hard-core smokers and chronic alcoholics. Thus, workers superphosphate and aluminum factories, as well as in populations living near these plants, there are changes in the mucous membrane due to exposure to fluoride, which developed toxemia of capillaries, catarrh, and sometimes ulcerative stomatitis, which leads to atrophy of the epithelium. Particulate production workers are in contact with carbon monoxide, particulate dust, anthracites oil. They revealed catarrhal and ulcerative gingivostomatity. Keratosis and leukoplakia. In the production of synthetic rubber noted effect on the body alphas-methylstyrene and divinyl, which contributes to the development of catarrhal inflammation of the oral mucosa. Disturbance of taste. In malignant oral mucosa of smokers becomes bluish-red shade, cloudy, shrink. Patients feel the dryness in the mouth. Saliva viscid, frothy, sialoschesis. On the lips, usually atrophic changes in the solid and soft palate may be leukoplakia Tappeynera. Oral mucosa in chronic alcoholics is also subject to significant changes in degenerative, inflammatory and even neoclassic character. The diagnosis of chemical injury is established based on history, clinical manifestations and nature of the chemical. To differentiate from allergic reactions, blood diseases, leukoplakia of other origin, etc.

Treatment of acute chemical injury in a queue should wash the mucous membrane of large amounts of water. Then the lesion is treated with oils anesthesia, make applications of 1% solution of Novocain or lidocaine galaskorbina, 4% solution of propolis.

When the acid rinse is prescribed burns I - 2% solution of sodium bicarbonate, a wine with alcohol.

When treated with caustic burns to mucous 1 - 2% solution of citric acid or acetic acid.

After contact with the mucous arsenious acid should do applique with tincture of iodine or powdered magnesia to form insoluble arsenic compounds.

If you burn 30% silver nitrate solution to reduce the intake is necessary to apply 2 - 3% solution of sodium chloride (table salt) or Lugol's solution.

To reduce the intake of phenol using applications of castor oil or ethanol.

For removal of acute inflammation used steroid ointments with antibiotics and antiseptics, followed by treatment of the mucous membrane means (rosehip oil, fish oil vit.A., karotolin, sea buckthorn, etc.).

Further management of patients with acute chemical damage done to the following schedule: excludes reception irritating foods, smoking, alcohol, and recommended vitaminized energy food in a shabby, the affected area - cold (ice cream), pain relievers in the form of applications and irrigation, in - Multivitamins

In chronic chemical injury treatment of patients whose intoxication caused by occupational exposures is carried out in specialized treatment facilities. Malignant chronic smokers need to explain the harmfulness of tobacco products sublimation hot on the oral mucosa, the possibility of chronic processes and malignant neoplasms. The same goes for chronic alcoholics, whose treatment was carried out in neuropsychiatric hospitals.

Preventing chemical injuries of the oral mucosa is reduced to an attentive and careful handling of potent drugs for the treatment of dental patients, a separate storage of household chemicals, strict adherence to the rules of professional security at chemical plants, broad dissemination of the dangers of smoking and alcohol consumption.

### **Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participates in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.

8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

Application Control and questions for review:

1. What are dental drugs can cause chemical burns if not handled with them? Answer: paste, phenol, 30% solution of silver nitrate, resorcinol-formalin paste.
2. List arsenic. A: p-p Lyugolya. 1% solution iodine, 5% solution unithiola, 30% solution of sodium thiosulfate.
3. Differential diagnosis of chronic chemical injury. Answer: allergic diseases, Bowen's disease, chronic hyperplastic candidiasis, clouding of the epithelium during planus, lupus erythematosus, secondary syphilis.
4. What drugs neutralize alkaline? Answer: 0.5% solution of citric, acetic acid, 0.1% hydrochloric acid solution.
5. How to prepare 0.1% solution of ammonia? A: 15 drops in 1 cup of water.
6. How to prepare 0.1% solution of hydrochloric acid, A: 10 drops in 1 cup of water.
7. What drugs neutralize acid? A: soap and water, 1% lime water, magnesia with water, 1% p-rum ammonia.
8. How to prepare 0.5% solution of citric, acetic acid? Answer: 1 / 4 teaspoon of acid in a glass of water.

## **6.2. ANALYTICAL PART**

### **Situational task №1**

Sick, H., age 55, disabled worker 2 groups, and complains of the availability of education in the left buccal mucosa. First noticed that the formation of 3 months ago. The patient smokes a lot, with 15 years of age. Objective: to the left cheek mucosa through the closing of the teeth near the corner of the mouth parts are marked as a rather compact formations whitish color, towering above the mucosa, painless on palpation. Surrounding the lesion mucosa is not altered.

1. List of the disease, possible symptoms for a given
2. Put the correct diagnosis.
3. List the treatments shown in the event of confirmation of the diagnosis

The answer. Probable diagnoses attached to symptoms: systemic lupus erythematosus, secondary syphilis, lichen planus, chronic hyperplastic candidiasis,

Bowen's disease, keratinizing squamous cell carcinoma of soft leukoplakia, epithelial opacities in the process of regeneration.

The final diagnosis of leukoplakia chronic chemical injury.

Treatment: Stop Vit.A with 10 drops 3 times daily for 2-mes. Mestno application Vit.A 3-4 times a day. Repeat the treatment 2-3 times a year.

#### Situational problem number 2

In the treatment of six lower right tooth for chronic periodontitis doctor applied the method of silver plating. Home sick already drew attention to the presence of a white film on the cheek in the treatment of the tooth. It was noted discomfort in the mucosa. The next day the patient is asked the same doctor with these complaints.

1. What happened to the patient.
2. Suggest a treatment option.

The answer. There has been a hit product on the buccal mucosa, causing severe chemical injury. Necessary to antidote therapy, 2-3% sodium chloride solution, or Lugol's solution. Further, anesthesia, antiseptics, application ceratoplasty.

#### Situational problem number 3

The patient complaints of N. severe pain in the lower six teeth on the right, which appeared after the imposition of arsenic. When viewed on the gum in the treatment of the tooth has white film of 0.5 x 0.5 cm tooth under a temporary filling, percussion painful.

1. Place a diagnosis.
2. Assign treatment

The answer. Acute chemical injury. Treatment - removal of temporary bandages, anti-doping totherapy: unithiol, clove oil, iodinol sulfate, magnesium, and iodine. Furthermore, anesthesia, antiseptics, the mucous-applique ceratoplasty.

#### Situational problem number 4.

P.46 patient years of the plant chemical industry worker complain of severe pain in the vestibule of the mouth when eating and speaking. OBJECTIVE: mucosa vestibule mouth hyperemic, edematous, there are small ulcers with gray - white bloom. From the words of the patient: has worked for 15 years in the shop for production of hydrochloric acid.

1. Place a diagnosis.
2. Assign treatment

A: The chronic chemical injury with hydrochloric acid led to ulcerative stomatitis,. Treatment - rinse 0.1% p-rum ammonia, anesthesia, antiseptics, application ceratoplasty.

#### Situational problem number 5.

Patient 3 days ago received a burn mouth 25% acetic acid.

1. Describe the clinic.
2. Place a diagnosis.
3. Assign treatment

The answer. The clinical picture of burn-limited shallow lesion of the oral mucosa, covered with a dense film of white and gray. . Mucosa surrounding edematous, hyperemic, painful. Treatment: to neutralize the 1% solution of ammonia rum, and then type of therapy of acute non-specific inflammatory process: anesthesia, antisepsis, application ceratoplasty.

Situational problem number 6.

The patient entered the hospital with burns of oral 10% solution of sodium hydroxide.

1. Place a diagnosis.
2. Assign treatment

A: Acute chemical injury. Burn alkali. Treatment: to neutralize 0.5% p-rum acetic acid, hereinafter referred to as anesthetic, antiseptic processing, application ceratoplasty.

Situational problem number 7.

The patient entered the hospital emergency room complaining of severe pain. When viewed from the oral cavity is hyperemia, mucosal edema, all of the hard palate is covered with thick brown film.

1. Place a diagnosis.
2. What substance is caused by a burn.
3. Assign treatment.

A: An acute chemical burns with sulfuric acid. Treatment: to neutralize the 1% solution of ammonia rum, and then to the type of therapy of acute non-specific inflammatory process: anesthesia, antisepsis, application ceratoplasty.

Situational problem number 8.

The department of therapeutic stomatologiiN2 turned 17 years old patient complaining of pain, discomfort and weird taste in my mouth. From the words of a patient 4 days ago was carried out orthodontic treatment. When viewed from the mouth: teeth intact, mucosa of the canine and premolars, upper left hyperemic, edematous, these teeth have plastic kappa.

1. Place a diagnosis.
2. Assign treatment

The answer. Prosthetic stomatitis. Allergic reaction to the mouthpiece. Treatment: not wearing a mouthguard recommended. Mucosa treated unithiol. Next: anesthesia, antisepsis, application ceratoplasty.

## TESTS

1. Prichinoy chemical burn of the oral mucosa is not:

- a) 30% solution Dimexidum
- b) an alkali
- a) Arsenic
- g) resorcinol
- d) formalin

2. Prichinoy chemical injuries in a dental office is:

- a) resorcinol - formalin paste
- b) 30% solution Dimexidum
- a) 2% sodium hypochlorite solution
- d) 1% alcoholic solution chlorophyllipta
- e) 0.2% solution sangvirin

3. Ozhog oral mucosa is called alkalis:

- a) collection
- b) The coagulation
- c) the gangrenous
- g) catarrhal
- e) the erosive

4. Ozhog oral mucosa acids are called:

- a) coagulation
- b) the catarrhal
- c) erosive
- g) collection
- e) the gangrenous

5. Chronical chemical injury may be the cause of development:

- a) leukoplakia
- b) MEE
- a) HRAS
- g) pemphigus
- e) glossalgii

6. Vyberite match defeat:

- 1. acute chemical injury
- 2. chronic chemical injury

- a) necrosis
- b) coagulation necrosis
- c) the leukoplakia
- d) hyperemia and blurred mucosal
- e) hyperkeratosis

7. Vyberite line drugs for the treatment of chemical injury:

- 1. ceratoplasty
- 2. antiseptics

- a) balsam Shostakovsky
- b) aekol
- c) rotakan
- g) chlorhexidine
- e) Solcoseryl

8. 10. Pri alkaline rinse solution prescribed burn:

- a) 1% acetic acid
- b) magnesia
- a) 1 - 2% sodium bicarbonate
- g) 1 - 2% of ethyl alcohol

d) 1% sodium fluoride

The correct answers :1-a ,2-a ,3-a ,4-a ,5-a, 6 - (1-b 2-c, d, e), 7 - (1-a, b, d 2-c, d) and ,8-

9. Chemical trauma of the oral mucosa may cause:

- a. resorcinol - formalin paste \*
- b. 30% solution of silver nitrate \*
- c. 30% solution Dimexidum
- d. 1% acetic acid solution
- e. 5% sodium hypochlorite solution

10. Antidote for the chemical lesion of the oral mucosa of arsenous acid is

- a. Iodine \*
- b. magnesia \*
- c. acetic acid
- d. citric acid
- e. formalin

11. Chronic chemical injury differentiated from:

- a. allergic reactions \*
- b. diseases of the blood \*
- c. CPL
- d. pemphigus
- e. MEE

12. When the acid rinse solution prescribed burn:

- a. sodium bicarbonate \*
- b. ethyl alcohol \*
- c. acetic acid
- d. citric acid
- e. sodium fluoride

13. By alkaline rinsing solution prescribed burn:

- a. acetic acid \*
- b. citric acid \*
- c. sodium bicarbonate
- d. ethyl alcohol
- e. sodium fluoride

14. Chemical trauma of the oral mucosa may bound, except:

- a) 3% solution of hydrogen peroxide \*
- b) Resorcinol - formalin paste
- a) 0.5% solution sodium hypochlorite \*
- d) 30% solution of silver nitrate
- e) 5% solution ascorbic acid \*

### **6.3. The practical part**

Manual skill

Fillings in patients with pathological abrasion

Purpose: To teach students to restore teeth with pathological abrasion

Indication: Restoration of teeth with abnormal abrasion.

Equipment: a drill, dental chair, dental standard set, the sealed composite materials, materials for medical treatment, forests, fotopolimerizator, tools and materials for final polishing of fillings.

Following the steps:

Manual skills	Failed to comply with Stage	Completed all phases of	The total score	The painting a teacher
1. Determination of the teeth with pathological abrasion.	0	5		
2. Formation of the site by cutting burs on the tooth surface.	0	15		
3. Rinse, medical treatment of teeth, drying	0	5		
4. The imposition of an insulating pad.	0	15		
5. Acid etching - 40 sec enamel, dentin 20 seconds, rinse.	0	15		
6. Drying (to appear "frost")	0	5		
7. Application of bonding Opti bond Solo and to light with halogen lamp 20 sec	0	15		
8. Imposition of a composite layer by layer weight of the finished area, lit by a halogen lamp.	0	15		
9. Gradual filling of the cavity composite, curing, finishing and handling glare seals	0	10		
<b>Total:</b>	0	<b>100</b>		

**Purpose:** To teach students of the local treatment of the lesion of the oral mucosa because of acid burns.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic:

1 Implementation of manual skill. (Guided) Local treatment of the lesion of the oral mucosa because of acid burn "

1. Goggles, rubber gloves, gauze mask
2. Application of anesthesia failure.
3. Washing area with water damage.
4. Washing with a weak alkali solution (0.1% p. soapy water, about 1% solution of ammonia).
5. Application funds.

Execution of manual skills:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze mask	0	10	20
2	Application of the defeat of anesthesia	0	10	20
3.	Washing the area with water damage	0	10	20
4.	Washing with a weak alkali solution (0.1% p. soapy water, 0.1% solution of ammonia).	0	10	20
5.	Application	0	10	20
	Total:	0	50	100

**Purpose:** To teach students of the local treatment of the lesion of the oral mucosa due to alkali burn

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment of the lesion of the oral mucosa  
 2. Execution of manual skills. (Guided) Local treatment of the lesion of the oral mucosa due to alkali burn"

1. Goggles, rubber gloves, gauze mask
2. Application of anesthesia failure.
3. Washing area with water damage.
4. Washing with a weak acid solution (0.1% p. hydrochloric acid, 0.5% solution of citric acid).
5. Application funds.

### Execution of manual skills:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze mask	0	10	20
2	Application of the defeat of anesthesia	0	10	20
3.	Washing the area with water damage	0	10	20
4.	Washing with a weak acid solution (0.1% p. hydrochloric acid, 0.5% solution of citric acid).	0	10	20
5.	Application	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Causes of acute chemical injuries of the oral mucosa.
2. Causes of chronic chemical injuries of the oral mucosa.
3. Clinical manifestations of acid burns of the oral mucosa.
4. Acid alkali burns manifestations of the oral mucosa.
5. Clinical manifestations of chronic chemical injury.
6. First aid for burns, alkalis.
7. First aid for acid burns.
8. Treatment of chronic chemical injury.

**LESSON № 7**  
**THEME: «Leukoplakia. Clinics.Diagnosis.Therapy.».**

**1. PLACE OF CLASSES, EQUIPMENT**

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

**2. DURATION OF STUDY SUBJECTS**

Hours - 390 minutes

**3. SESSION PURPOSE**

- To teach students the concept of leukoplakia
- To teach students the methods of diagnosis of leukoplakia,
- To introduce the etiologic factors of leukoplakia
- To teach the students ability to characterize the clinical picture of leukoplakia
- Train the differential diagnosis,
- Train the choice of treatment.
- To familiarize students with preventive measures to prevent occurrence of leukoplakia.
- Teach them the proper execution of manual skills step by step.

**Tasks:**

***The student should know:***

- Forms of leukoplakia,
- The cause of leukoplakia
- The various clinical manifestations of leukoplakia
- Treatments for leukoplakia

***The student should be able to do:***

- Identify elements of defeat, their inspection and palpation
- Elimination of local traumatic factors
- Fluorescent method for studying
- The defeat of anesthetic ointment
- Antiseptic
- Application of the element defeat.

## 4. MOTIVATION

Knowledge of different methods of treatment of acute and chronic physical injury is important in the prevention and treatment of physical injuries. Necessary to safely carry out all stages of treatment of physical injury, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

#### Leukoplakia (Leucoplakia)

Name from the Greek leucca-white, Plax-plaque.

The disease is characterized by chronic inflammation of the mucous membranes of the mouth or lips and a red border is accompanied by enhanced epidermalization and inflammation of the mucous membrane itself.

Etiology - the effect of various factors:

- The sharp edges of the teeth, fillings, poor prosthesis.
- Hot, spicy food
- Galvanic currents.
- Meteorological factors.
- Occupational hazards
- Bad habits

Predisposing factors:

- The presence of concomitant dental diseases.
- Hypo- and avitaminosis
- Metabolic
- Local dystrophy

Histopathology

- Hyperkeratosis
- Parakeratosis
- Granulosa
- Acanthosis
- Cell disease in its own layer of mucous

#### Epidemiology

- Age 17 to 70 years, mostly men over 40 years.
- Distinguish leukoplakia (AA Mashkeleyson, 1970)
- Flat or simple
  - Verrucous
  - Erosive-ulcerous
  - Smokers (Tappeynera)
  - Soft.

Subjective feelings: (depending on the clinical picture)

- An unusual condition in the mouth
- Tightness, burning, reduced taste sensitivity
- Pain when talking, eating.

Visual examination of the lesion:

Sleek (leucoplakiaplana)

- Spot-m. is clouding mucosal lesion at the site, "a symptom of tissue paper"

Verrucous (verrucase)

On the surface of the plaque:

warty growths above the level of mucosal  
shell 'symptom cobblestones "

Erosive-ulcerative

- Warty growths between bleeding, poorly healing fractures, erosions, ulcers

Leukoplakia Tappeynera (leucoplakianicotinicaTappeiner)

- Clouding of the mucous membrane of the hard and soft palate, marked on the edge of the gums
- Extended minor salivary glands of the sky in the back of her part-in the form of small reddish nodules with a dot in the center.

Mild leukoplakia (leucoplakiamollis)

Alopecia - foci of hyperplasia and desquamation of the epithelium in the form of whitish scaly patches on the swollen mucosa.

Diffuse - porous areas loosened, hypertrophic mucosa, similar to the "sponge"

Differential diagnosis with

- Lichen planus - the absence of an inflammatory response
- Lupus - the absence of atrophy and a bright flare, the localization of the affected skin, changes in the blood.
- Soft leukoplakia - on soft, loose homes, scraping with a spatula, without clear boundaries
- Papularsyphiloderm - the element of defeat, the presence of infiltrate in the base element of destruction, history, additional methods of examination.
- Candidiasis - for scraping plaque in chronic hyperplastic candidiasis in laboratory

research, history, histological examination, planting.

Laboratory studies have

Fluorescence diagnostics, cytology, histology, biopsy.

Diagnosis is based on anamnestic, clinical, laboratory and differential - diagnostic data.

Treatment of leukoplakia:

- Treatment of opportunistic diseases
- Removal of local irritants

dental health

- Management of prosthetic

- Oral retinol acetate oil solution, 10 drops 3 times a day for 2 months.

- Inside the B vitamins in the form of thiamine bromide for 20-30 mg per day or intramuscularly in the form of 6% solution, 1-2 ml, Vit B12, 1-2 ml for 10-20 days.

- Cryosurgery, excision of healthy tissue within

- X-ray therapy

- Applications of analgesics: 1% piromekain, 1% p / p dikaina, 10% p / p lidocaine for 10 minutes on the damaged surface of the mucosa.

- With a flat leukoplakia - applications of oil solution of Vit A. A or Vit C. E 3-4 times a day with 20 minutes of exposure 1.5 months.

Veracious leukoplakia-in - under the blockade of the lesions by 5% solution or dilagilahonsurida (0.05 g of the substance is dissolved in 2-3 ml of 0.5% Novocain) at 2-2.5 ml. Injections are carried out through the day, the course of injections 8.6.

In-erosive form is used means: give a good effect Solcoseryl adhesive paste application on 20 minutes 3-4 times a day for 7-10 days.

If you find fungus Candida used antiviral agents (applications of 5% solution of interferon with an exposure of 15-20 minutes) 3-4 times a day for 7-10 days.

### **Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

## **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

## Application Control and questions for review:

1. What are the morphological element destruction in various forms of leukoplakia.
2. Fluorescent diagnosis of various forms of leukoplakia.
3. List the symptoms that occur with leukoplakia
4. List the clinical signs of malignancy leukoplakia
5. Histological examination with leukoplakia
6. Age criteria of leukoplakia.
7. Prevention of leukoplakia
8. Clinical examination of leukoplakia

## Answers:

1. Morphological element defeats the flat form of leukoplakia is the spot, veracious plaque form-limited and uneven education, erosive forms, bleeding, poorly healing fractures, erosions, ulcers on the site leukoplakia smokers (Tappeynera) - clouding of the mucous membrane of the hard and soft palate, expressed on the edge of the gums with advanced small salivary glands of palate at the back part of it, in the form of small reddish nodules with a dot in the center.
2. Luminescent method consists of observing the secondary radiation of tissue irradiated in a dark room with a 10-15 min. Perform the disposition to the differentiation of certain types of keratosis, refine the shape and phase. Sleek leukoplakia gives a bright blue glow in the rays of the Wood verrucous leukoplakia - an intensive luminescence of tissues with a yellowish tinge, erosive-ulcerous

form of leukoplakia gives a brown glow in the phenomena observed malignancy purple glow.

3. The symptoms of leukoplakia: a symptom of "tissue paper" - kind of element in the defeat of the flat form of leukoplakia, a symptom of "cobblestones" - the kind of leukoplakia on the background of the folded tongue, buckle mucosa folding.

4. Clinical signs of malignancy: Strengthening the processes of keratinization, the rapid increase in the size and density of the source, the appearance of seals at the base of plaques, erosions, papillary growths on the surface erosion, bleeding in trauma, the emergence of non-healing fractures.

5. Histopathological changes in leukoplakia characterized by hyperkeratosis, parakeratosis, acanthosis, cellular infection in the proper layer of mucous.

6. Leukoplakia occurs mainly in middle-aged and older (17-70let), more frequently in men (erosive-ulcer-45 to 70let)

7. Prevention of leukoplakia, a timely warning trauma of the oral mucosa: smoking, hot and spicy foods, low-quality prostheses, the sharp edges of the teeth, galvanic currents.

8. Clinical examination. In the flat form of leukoplakia patients examined by a dentist again after 1.5-2 months after detection of the disease. If you revisit the hearth leukoplakia disappeared, there was no exacerbation and relapse, such patients are removed from the register. With the progression of the process, torpid course of disease patients leukoplakia, especially with verrucous and erosive and ulcerative forms are dynamic monitoring every 3-4 months over the next 3-5 years.

## 6.2. ANALYTICAL PART

Situational tasks № 1

1. Patient 60 complained of changes in red border of lips.

OBJECTIVE: In the red border of the lower lip has a whitish area with clear boundaries, painless on palpation, the mouth is not sanitized, in need of prosthetics. From history we know that the patient smokes, and disease duration of 3 years. In history, concomitant diseases, gastritis with low gastric secretory function.

A). Identify the morphological element of defeat:

- a) tubercle
- b) spot
- c) the pustule
- d) an abscess,
- e) The rumen

B). Spend an additional method of investigation:

- a) Schiller-Pesaro,
- b) Kulazhenkov,
- c) luminescent,
- d) blood test
- e) bacteriological

In). Put a diagnosed

- a) leukoplakia,
- b) candidiasis,
- c) lichen planus,
- d) secondary syphilis
- e) lupus erythematosus
- D) Treatment:
  - a) prohibition of smoking,
  - b) rehabilitation of the mouth,
  - c) the antiseptic treatment,
  - g) applique Vit.A,
  - d) All answers are correct.

Correct Answers: A-B, B-a,-a, T a, A-B

#### Situational problem number 2

In men 42 years old during the inspection of oral cavity revealed several areas of non-uniform cloud epithelium with fairly sharp edges, spots are not protrude above the level of the mucosa and localized on the red border of the lips and buccal mucosa through the closing of the teeth in the anterior

- A) Conduct additional research method:
  - a) cytological,
  - b) luminescent,
  - c) determination of pH,
  - g) blister test,
  - e) sample Rotter
- B) In the light of Wood is determined by the light:
  - a) bright-blue,
  - b) white
  - in) of snow-white,
  - d) a dirty yellow,
  - e) violet
- B) Place the diagnosis:
  - a) soft leukoplakia,
  - b) verrucous leukoplakia,
  - c) erosive,
  - g) is flat leukoplakia,
  - d) candidiasis.
- D) Spend the differential diagnosis:
  - a) MEE,
  - b) HRAS,
  - a) candidiasis,
  - d) CSOs,
  - e) pemphigus.
- D) This disease belongs to:
  - a) virus,
  - b) the fungus,

- c) a precancerous,
- d) endocrine,
- e) specific.

Correct Answers: A-B, B-a,-r, r-a, D-in

#### Situational problem number 3

K.37 patient years, smoking for 16 years. Notes the periodic appearance of the formation of white, which stand out above the surrounding mucosa and easily injured. In the treatment of ulcers do not heal well formed.

A) histopathological defined:

- a) spongiosis,
- b) atrophy,
- a) hyperkeratosis,
- g) vacuolar degeneration,
- e) acantholysis

B) Place the diagnosis:

- a) soft leukoplakia,
- b) verrucous leukoplakia,
- c) erosive leukoplakia,
- g) is flat leukoplakia,
- d) candidiasis.

B) Spend the treatment of:

- a) applique Vit.A,
- b) cryosurgery,
- c) electrocoagulation,
- g) a, b, c,
- d) All answers are not true

D) Prevention:

- a) prohibition of smoking,
- b) the exclusion of acute and hot food
- c) removing the sharp edges of teeth,
- d) repair of substandard prosthesis
- d) All answers are correct

Correct Answers: A-B, B-, B-D, G-d

#### Situational problem № 4

The patient was 56 years old with verrucous leukoplakia cheek there is a growing keratinization bleeding. Suspicion of malignancy. To confirm the diagnosis is necessary to study

- a) cytological
- b) diagnosis
- c) the microbiological
- d) immunological
- e) serological diagnosis

5) Confirmation of the diagnosis of malignancy verrucous leukoplakia is found in

cells in smears of prints

- a) atypical
- b) the Pirogov-Langhans
- a) monsters
- d) giant

Tests

1. Element in the defeat of leukoplakia:

- a) spot
- b) The papule
- c) the pustule
- d) an abscess
- e) The rumen

the correct answer and 1.

2. Leucoplacy more common in:

- a) male smokers
- b) The newborn
- c) the young girls
- g) in old age
- e) all

the correct answer and 2.

3. In the scheme of the general treatment does not include:

- a) anti-inflammatory therapy
- b) The administration of multivitamins
- a) receiving oil solution of Vit. A
- d) receiving oil solution Vit.E
- d) All answers are not correct

the correct answer and 3.

4. Etiological factor for leukoplakia:

- a) different (mechanical, physical, chemical), trauma
- b) the virus
- c) changes in the cardiovascular system,
- g) allergies
- e) fungi

the correct answer :4-a.

5. Symptom occurring in leukoplakia:

- a) Tissue Paper
- b) apple jelly
- c) dew
- g) vazoporeza
- e) finger tremor

the correct answer and 5.

6. Leykoplakiya can take place (look for correspondence):

- 1) a flat
- 2) verrucous
- 3) erosive and ulcerous
- 4) Tappeynera
- a) without subjective sensations
- b) a sense of foreign body
- c) pain and burning
- d) the clumsiness and contraction

the correct answer : 1-a ,2-b ,3-a ,4-d

7. Lyuminestsentnoe study with leukoplakia gives luminescence (matched):

- 1) verrucous
- 2) for malignancy
- 3) erosive and ulcerous
- a) yellowish
- b) violet
- a) Brown

the correct answer and 1 ,2-b ,3-in.

8. Leykoplakiya differentiated (matched):

- 1) a flat
- 2) verrucous
- 3) erosive and ulcerous
- a) The typical form of the CPL
- b) hyperplastic candidiasis
- c) erosive ulcer CPL

the correct answer and 1 ,2-b ,3-in.

9. Etiologicheskim factor of leukoplakia are, except for:

- a) allergy \*
- b) injury
- c) fungi \*
- d) smoking
- e) virus \*

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of the affected area OCAN

Indications: Diagnosis of diseases OCAN.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on

List of manual skills step by step: Local treatment of the affected area OCAN "

- 1. Wearing safety goggles, rubber gloves, gauze mask
- 2. Application of anesthesia failure.
- 3. Antiseptic treatment.

4. Application of antibacterial agents in an element of defeat.
5. Application funds.

Execution of manual skill:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauzmask.	0	10	20
2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20
4.	Application of antibiotics: application of an ointment link on a cotton ball, fixing it to the affected area	0	10	20
5.	Application solkoserila	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Which group of diseases is leukoplakia?
2. The etiology of leukoplakia.
3. The classification of leukoplakia.
4. Clinical manifestations of the flat form of leukoplakia.
5. Clinical manifestations and erosive forms of verrucousleukoplakia.
6. Tappeynera leukoplakia. The clinic.
7. Differential diagnosis of leukoplakia
8. Treatment and prevention of leukoplakia

## LESSON № 8

**THEME: «Oral manifestations of viral diseases (herpes simplex & herpes zoster (chicken pox), herpangina). Clinics. Differential diagnostics. Acute respiratory viral infections. Clinics. Diagnostics. Therapy. Prophylaxis.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.
- 

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

- To teach students the concept of viral diseases.
- To teach students the methods of diagnosis of viral diseases
  - To introduce the etiologic factors of viral diseases
- To teach the students ability to characterize the clinical picture of viral diseases
- Train the differential diagnosis - Train the choice of treatment. -To familiarize students with preventive measures for the prevention of viral diseases
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

#### ***The student should know:***

- What is viral disease,
- Cause of viral diseases
- The various clinical manifestations of viral diseases
- Methods of treating viral diseases.

#### ***The student should be able to do:***

- Identify elements of defeat,
- Their inspection and palpation;
- Method of cytological studies;
- Application of anesthetic;
- Antiseptic;
- Application of antiviral drugs;
- Appliqué ceratoplasty;
- Carrying out physiotherapy.

## 4. MOTIVATION

Knowledge of different methods of treatment of acute and chronic physical injury is important in the prevention and treatment of physical injuries. Necessary to safely carry out all stages of treatment of physical injury, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, path physiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Physiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Viral diseases of the oral mucosa is occupied by the prevalence of a significant place in the group of diseases of the mucous membranes. In the mouth there are adult herpes simplex virus, cytomegalovirus, adenovirus, some enteroviruses, reoviruses, and some other

Simple (ordinary) cold sores (herpes simplex)-the most common viral disease. Pathogen - herpes simplex virus.

In the oral cavity is manifested in two forms

- Primary herpes - an acute stomatitis

A chronic recurrent herpes.

Modes of transmission - contact, inhalation

Acute herpetic stomatitis (stomatitis herpetica acuta).

In the pathogenesis of the disease are 4 periods:

Prodromal, catarrhal, the period of eruption, the extinction of the disease.

Distinguish three degrees of severity: mild, moderate, severe.

The incubation period is 3-4 days

Complaints: fever (temperature  $37^{\circ}\text{C}$ ), weakness, pain in the mouth, inability to eat or talk.

Chronic recurrent herpes (herpes chronicus recidivans).

Pathogen - herpes simplex.

Affects people of all ages, before the usual herpes virus and have virus-neutralizing antibodies.

Predisposing factors - overheating, hypothermia, stress, intoxication, trauma, dry lips.

Subjective sensations - burning pain in the oral mucosa.

Localization - the skin around the lips, on the trunk, on the mucous membranes: the hard palate, tongue, heaven, sex organs, corneas.

The sequence of formation of elements:

Bubble-erosion-ulceration.

Erosion-flesh-colored, covered with fibrinous white-yellow coating, tend to merge. The edges of the scalloped erosion.

The duration of 8-10 days. Healing without scar formation.

It should be remembered:

1. Cold sores on the background pathology of blood and blood-forming organs can lead to necrotizing process.
2. Older people with weakened protective reaction of cold sores can lead to venous ulcers.

Differential diagnosis is with chronic recurrent aphthous stomatitis, allergic rashes, syphilis, impetigo.

The criterion of distinction will serve as cytological examination.

Herpes zoster (herpes zoster).

Pathogen - a virus that is identical to the chickenpox virus, Varicella / zoster.

Suffering children and adults.

Route of infection, inhalation and contact.

The predominant effect of the virus

Developing the disease at a sharp weakening of the protective properties of the organism in the pathology of the blood, as a complication, is characterized by involvement in the inflammatory process of the cranial ganglia of certain spinal nerves and, Gasser node, the second and third branches of the trigeminal nerve.

There are two clinical forms:

Varicella-during the initial contact with the virus.

Herpes zoster (shingles) - with secondary infection.

The incubation period is 7-14 days.

Subjectively: fever, chills, fever up to 39 ° C, paroxysmal pain along the nerves. Possible triad: herpes zoster, facial paralysis, pain in the ear (Ramsay-Hunt).

Pain along nerves, aggravated by irritants, one-sided.

Objective data: one-sided multiple blisters on the skin and hyperemia of the mucous membrane in the course of the trigeminal nerve. Depending on the contents

vesicles are distinguished form: hemorrhagic, vesicular, gangrenous.

An element of defeat: the vesicle-erosion-crust-pigmentation (skin), it is possible. Regional lymph nodes are enlarged, painful. Duration of 2-3 weeks. Weather favorable for life, but there may be complications (meningitis, hepatitis, encephalitis). Laboratory investigations - blood tests, virus isolation, cytology (vesicles located intraepithelial).

Herpangina - caused by Coxsackie virus A.  
Children are sick more often. Mode of transmission - air - drop.  
Localization of lesions - oropharynx.  
Acute onset, abdominal pain.  
Elements of defeat - the vesicles - erosion or naphtha.  
Develops regional lymphadenitis.  
Duration of illness 4-6 days.  
The forecast is favorable.

#### Treatment:

##### General Medicine:

- Etiotropic-antivirals
- Benetton of 0.1 to 3 times a day for 5 days with an interval of 2 days, 10 days
- Herpetic polio vaccine at 0, 1 intramuscularly at intervals of 2 days -10 injections.
- The drug inhibits the growth of herpes virus-dezoksiribonukliaza to 10 mg 3 times a week by intramuscular injection in the course of 10.
- Stimulating - gamma globulin intramuscularly in 3.0 - 5 injections.
- Petoksin of 0.2 to 3 times a day after meals 15 days
- Hiposensibilic
- Suprastin of 0.25 mg 1 time per day 10 days
- Broad spectrum antibiotics
- Oleandomitsin to 0,125 mg 2 tablets 4 times a day
- Vitamin
- Thiamine bromide 0.01 mg 3 times a day 15 days
- Anaesthetics
- analgin of 0.25 mg 3 times a day
- sodium salicylate in 5.0 mg 4 times a day
- ascorbic acid of 1.0 mg 4 times daily after meals

#### Local therapy

##### Antivirals

- Interferon diluted 1:1 isotonic
- In applique
- 50% of interferon ointment the first 7 days of illness
- 0.5% ointment 2 times a day -7 days
- The ointment 4 times a day in the form of applications

##### Antiseptic treatment

- Herbal solutions, infusion of chamomile, sage 25 drops in a glass of water 3 times a day

### Enzyme preparations

- 0.2% solution of deoxyribonucleic

### Anesthetics

- 1% solution piromekaina
- 5% solution in peach oil anesthesia
  
- Akola in applique
- 3-4% of the lubricant solution of vitamin A
- Solcoseryl

Physical methods of treatment carried out with the first days of disease

- Laser therapy
- MSS.

Acute respiratory disease.

These include influenza, parainfluenza, rhinovirus infection, respiratory syncytial-infection with adenovirus disease.

Causal agent: influenza virus, parainfluenza and adenovirus.

Modes of transmission - airborne.

Complaint - fever, general weakness.

Localization - region adjacent toward throat.

Manifestations in the oral cavity - redness, swelling of the soft palate, uvula, palatine arches, oropharynx. The mucous granular, alternating Injection vessels, punctuate .

Duration of disease - 7-10 days

Differential diagnosis of influenza - with medication allergic stomatitis, vulgar pemphigus, erythema multiform exudative.

Foot and mouth disease (aphtaetpizooticae) - an acute infectious disease.

The nature of the disease - endemic

Pathogen - a virus of filter. Affects animals, rarely people. Contamination from infected animals occurs through the alimentary (milk, meat), and through broken skin and mucous membranes.

The incubation period from 18 hours to 7 days.

Elements of damage - polygonal erosion, covered with fibrinous coating, ulcers, crusts.

Location: oral mucosa. Skin: The wings of the nose, around the nail boxes, interdigital folds, the soles.

Complaints - headaches, muscle aches.

Clinical forms:

Worn: isolated bubbles, naphtha. Common symptoms are absent. Duration of 5-7 days.

Acute: symptoms of intoxication: fever, redness of the oral mucosa, vesicles, usually affects the anterior mouth, sharp pain, hypersalivation.

Chronic - a rare prolonged, depending on the protective properties of the body are affected large areas of skin and mucous membranes.

Foot and mouth disease is accompanied by gastro-intestinal disorders.

The forecast is favorable.

Duration of disease (relapse) - 7-20 days.

Treatment:

Etiotropic - against foot-specific hyperimmune serum, a specific gamma-globulin.

Symptomatic:

Local: Pain relief mucosa spend 1% solution 5-10% solution in peach oil anesthesia for 15 minutes 3 times a day during treatment.

- Antiseptic treatment in the form of mouthwashes and mouth trays: 0.25 - 0.5% hydrogen peroxide solution, 0.25% solution of bleach, 0.1% solution of gossypol. In the first 3 days of the disease process every 3-4 hours.

- Antiviral ointment: 3% liniment gossypol - every 3 hours during the first 3 days.

- Keratoplasty: oil solutions Vit. A, E, karotolin, rosehip oil, ointment and jelly solkoserila 3 times daily for 7 days.

Mode - hospitalization in severe cases, infectious disease clinic for at least 14 days from the onset. We recommend liquid food 5-6 times a day.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participates in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
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#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
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11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

Application Control and questions for review:

1. Differential diagnosis of herpes zoster
2. Differential diagnosis of foot and mouth ..
3. Prevention of FMD.
4. Prevention of influenza.
5. Treatment of influenza
6. Element of herpes simplex lesions
7. Cytologic picture of viral diseases
8. The epidemiology of FMD.

Answers:

1. Differential diagnosis of acute herpes zoster with herpetic stomatitis, allergic rash, pemphigus, pemphigoid, skin - with erysipelas.

Diagnostic criteria are: the location along the nerve burning pain, homomorphism elements lesions, cytolysis

2. Differential diagnosis of foot and mouth disease - from herpes sores, chicken pox, medicinal disease, exudative erythema multiform.

Criteria - epizootic situation, the disease among animals, the volatility of flash, characteristic skin lesions and the oral mucosa.

Cytological, biological samples, virus isolation, a positive complement fixation test.

3. Prevention of Foot and Mouth Disease: Personal prophylaxis zoo technical and veterinary staff in the outbreak of the disease - the work in special clothes. Employees virological laboratories - work gloves and special clothing.  
- Sanitary-educational work among the population of epidemiological focus: To prevent contamination by food, milk should be boiled for 5 minutes for 30 minutes at 85 ° C.

4. Prevention of influenza.

- Isolation of the patient group.

- Elimination of chronic foci of infection.

- The prophylactic use of antiviral ointments in flu epidemic by laying on the nose 1-2 times a day.

- Inside bonafton, rimantadine: 1 tablet 2 times a day for 5 days.

- The flu epidemic - desensitization: suprastin, pipolfen (in a single dose per day, prophylactic course no more than 5 days), Vit. With up to 2.0 grams per day.

- Herpetic polio 0.1-0.2 mL intramuscularly 2 times a week, the rate of 10

injections.

## 5. Treatment of influenza

General:

- High-energy diet, drinking plenty of fluids
- Antivirals - rimantadine 0.05 g 3 times a day
  - Bonafton 0.1 g 3 times daily for 5-10 days
- Strengthening therapy - Vit. With up to 2.0 grams per day.
- Analgesics, antisense:
  - sodium salicylate 0.5 g 4 times daily for 5-10 days.

Local:

- Antiseptic treatment 0.1%, 0.01% solution 3-4 times a day Dimexidum.
- Anesthesia of the mucous 0.5% solution trimekaina, 2% solution of lidocaine
- Applications of proteolytic enzymes, 1 per day for 15 minutes - trypsin, lysozyme, and pancreatin.
- Antiviral ointment 3-4 times a day for 20 minutes, 1% ointment Zovirax, acyclovir.
- The drugs 2-3 times a day for 20 minutes after epithelialization: Vat. And in oil, aloe Vera juice, juice of Karotolin.

6. Elements of Destruction: the stabilization of small bubbles (1-2 mm) in the presence hyperemic edematous mucosa becomes aft-erosion with a tendency to merge.

## 7. Cytological picture of viral diseases.

Studies carried out in the first 2-3 days of illness, after the appearance of bubbles. Material-scraping or content of bubbles. The vesicles are intraepithelial. Detected giant multinucleated cells, the herpes virus, polymorph nuclear neutrophils.

## 8. The epidemiology of FMD.

Infection with human FMD occurs mostly through nutritional, and insufficient processing of contaminated meat and milk. Foot and mouth disease as an occupational disease, common in veterinary workers.

Routes of Entry:

- Airborne
- Nutritional (milk, meat)
- Through the intact skin and mucous membranes.
  - Methods for detection
- Biological assay and serologic responses.

## 6.2. ANALYTICAL PART

Situational problem number 1.

Patient 20 years, considers himself a patient 5 days when she felt unwell, weakness, fever up to 39 ° C. There was pain when speaking, eating, increased, salivation.

When viewed from the oral cavity observed diffuse hyperemia throughout the mucosa and on the basis of a hydroid - sores on his cheeks, palate, lips red border and there are multiple merged erosion covered with grayish-white bloom. Sharply

painful. Palpation of the submandibular and cervical lymph nodes painful nodes are enlarged.

Place a diagnosis.

Make a plan of treatment.

A: Herpes simplex Treatment: Pain relief, antiseptic, antiviral drugs applique, applique.

Situational problem number 2. Female 60 years complained of malaise, headache, chills, body temperature of 36 ° C and burning – different neurotic pain during the trigeminal nerve on the left. Anamnesis revealed earlier pneumonia. Objective: the skin of the chin to the left ear, there are numerous vesicles with a diameter of 1 to 6 mm. In the mouth on the left cheek mucosa hyperemia revealed erosion unit, covered with fibrous plaque.

Spend an extra method:

\* @ Histological

@ Bacteriological

@ Cytological

@ Biological

@ Histamine test.

Put a diagnosed

\* @ Herpes zoster

@ HRAS

@ OGS

@ CPL

@ Lupus Erythematosus

Spend a differential diagnosis:

PSO @ \*

@ Pemphigus

@ Pemphigoid

@ Allergic stomatitis

@ All the answers are correct

General treatment:

\* @ Antipyretic

@ Analgesics

@ – protivoviroviral

@ Vitamins

@ All the answers are correct.

Local treatment:

@ Analgesia \*

@ Applique enzymes

@ Applique antiviral ointments

@ Applique keratoplasty

Situational problem number 3.

Patient N. complains of pain when eating and speaking, malaise. The body

temperature of 37,5 ° C. From the medical history revealed that the patient often suffers from colds. OBJECTIVE: red border on the lips and surrounding skin areas visible pustules, purulent crusts on the lips hyperemic mucous multiple painful erosions covered with loose whitish-yellow.

1. An additional method of examination:

\* @ Cytological

The x @ - technologically

@ Function

@ Luminous

@ Biopsy

2 Perform a differential diagnosis:

\* @ Leukoplakia

@ Planus

@ Zoster

@ Lupus erythematosus

.

3 Place the diagnosis:

@ Acute herpetic stomatitis

@ - cue chronically recurrent herpes

@ Zoster

@ FMD

4. Provide general treatment:

@ Analgesics \*

@ Antipyretic

@ Antiviral

@ Vitamins

@ All the answers are correct

5. In the local treatment is used the ointment:

\*

@ Heparin

@ Oxolinic

Situational problem number 4.

Patient 40 years old, came from the countryside, has a cow, a lover of fresh milk, complained of general weakness, headache, muscle aches, fever to 38 ° C, burning sensation in the mouth. OBJECTIVE: Oral mucosal swelling, hyperemic. On rectories, tongue, lips, there are numerous vesicles, painful, rapidly dehiscent by palpation with the formation of erosions. Speech and eating difficult.

1. Provide additional examination method:

@ Virus isolation integer - \*

@ Luminous

@ Biopsy

- @ X-ray
- @ bacteriological.
- 2.Provedite differential diagnosis:
  - \* @ Leukoplakia
  - @ Citatory herpetic stomatitis
  - @ Chronic recurrent aphthous stomatitis
  - @ Candidiasis
  - @ Lupus Erythematosus
- 3.Postavte diagnosis:
  - @ Acute herpetic stomatitis \*
  - @ FMD
  - @ Chickenpox
  - @ Drug allergy
  - @ Exudative erythema multiform.
- General treatment:
  - @ Pentalgin
  - @ Tsitramon
  - @ Travail
  - @ Benetton
  - @ All the answers are correct \*
- Local treatment:
  - @ (lidocaine 10%) \*
  - @ treatment (dimeksid)
  - @ Enzymatic treatment (kukumazine)
  - @ Applique antiviral ointment (florenal)
  - @ All the answers are correct

Situational problem number 5.

The patient complains of 50 years, high body temperature, chills, loss of appetite, muscle aches and back, abundant, slurred speech, skin rash and mucous membrane about the mouth  $\neg$  shell.

The patient has a plot, a cow, a goat. On examination of the oral mucosa observed many bright - red painful erosions. Regional lymph nodes are enlarged, painful. The bubbles are in the skin of the interdigital folds arms and legs, accompanied by burning and itching.

1.Provedite additional examination method:

- @ Biological sample \*
- @ Luminous
- @ Biopsy
- @ X-ray
- @ PH

2.Provedite differential diagnosis:

- \* @ Chickenpox
- @ Candidiasis
- @ HRAS

@ Lupus Erythematosus

@ CPL

3. Postavte diagnosed

PSO @ \*

@ MEE

@ Drug allergy

@ FMD

@ Chickenpox.

General treatment:

@ Analgesics \*

@ Antipyretic

@ desensibilizing

@ Replies are not true.

Local treatment:

@ 1% of applications

@ 1% processing iodinol

@ Application terrilitin

@ - application howl ointment

@ All the answers are correct.

Situational problem number 6.

Patient during the week worried pains in the course of the intercostal nerves on the left. 3 days ago the body temperature rose to 38 ° C, and there were sores on the skin of the left half of the chest in the course of the intercostal nerve in the form of small vesicles grouped on the basis of swelling and hyperemic.

the ground.

In the mouth on the left hyperemic mucosal erosion are covered with fibrinous plaque, painful. Submandibular nodes painful

Place a diagnosis

Make a plan \_

Answer: Shingles Treatment: Pain relief, antiseptic, antiviral drugs applique, applique.

Situational problem number 7.

Patient N., aged 17. Appealed to the clinic with complaints of malaise, pain in the mouth, increasing eating and talking, a painful rash (on the buccal mucosa, transitional fold).

Objective: to edema, hyperemia buccal mucosa, transitional folds are isolated aphthae rounded, fringed with red rim, covered with fibrous plaque, painful. Tongue coated. Submandibular lymphadenitis expressed and cervical nodes.

Cytology revealed giant multinucleated cells.

Place a diagnosis

A: Acute herpetic stomatitis

Situational problem number 8.

Patient S., 24, complained of burning and pain in the mouth when eating, talking.  
OBJECTIVE: red border on the upper lip in the border area with the skin contains small vesicles grouped containing a clear fluid. Histological changes are characterized by the presence of intraepithelial blisters. This clinical picture was observed a year ago.

Place a diagnosis.

Make a plan of treatment.

A: Chronic recurrent herpes Treatment: Pain relief, antiseptic, antiviral drugs applique, applique keratoplasty.

Situational problem number 9.

On the advice came a woman 30 years with complaints of high body temperature, headache, pain on swallowing, sometimes retching. When viewed from the mouth on the soft palate, anterior ear, tonsils and back of the throat revealed hyperemia, which can be seen against the background of painful erosions with scalloped edges. Submandibular lymph nodes are slightly enlarged, painless.

Place a diagnosis.

Make a plan of treatment.

Answer: gerpangina Treatment: Pain relief, antiseptic, antiviral drugs applique, applique keratoplasty.

Situational problem number 10.

The patient complains of 37 years to a high body temperature of 39 ° C for 3 days, malaise, weakness, soreness.

OBJECTIVE: mucous membrane of the soft palate, uvula, palatine arches, oropharyngeal swelling, hyperemic, has a granular form and point.

Place a diagnosis.

Assign treatment.

A: SARS. Treatment: Pain relief, antiseptic, antiviral drugs applique, applique keratoplasty

Situational problem number 11.

Female 60 years complained of malaise, headache, chills, body temperature and burning 36oS paroxysmal neurotic pain during the trigeminal nerve on the left. Anamnesis revealed earlier pneumonia.

Objective: the skin of the chin to the left ear, there are numerous vesicles with a diameter of 1 to 6 mm. In the mouth on the left cheek mucosa hyperemia revealed erosion of the unit covered by the fibrous plaque.

Place a diagnosis. Make a plan of treatment.

The diagnosis: shingles. Treatment: Pain relief, antiseptic, antiviral drugs applique, applique keratoplasty

Situational problem number 12.

The patient complains of 50 years, high body temperature, chills, loss of appetite,

pain in muscles and lower back, salivation, slurred speech, skin rashes, and oral mucosa. The patient has a plot, a cow, a goat. On examination of the oral mucosa observed many bright - red painful erosions. Regional lymph nodes are enlarged, painful. The bubbles are in the skin of the interdigital folds arms and legs, accompanied by burning and itching.

Place a diagnosis.

Make a plan of treatment.

A: Foot and mouth disease. Treatment: Pain relief, antiseptic, antiviral drugs applique, applique keratoplasty.

### TESTS

1. When herpes zoster oral mucosa treated with:  
a) antiviral ointments, b) sulfonamides, c) drugs, d) antihistamines, g) with antibiotics.
  2. Shingles begins with:  
a) pain along the affected peripheral nerves are always on one side.  
b) pain along the peripheral nerves are always symmetrical,  
c) The headaches and dizziness  
g) and muscle and joint pain  
d) the heat
  3. Morphological element with shingles:  
a) vesicle, b) a papule, a) scale, d) hillock, g) spot.
  4. Giant multinucleated cells are found at:  
a) herpes simplex, b) leukoplakia, a) lichen planus  
d) candidiasis in) Haley.
  5. Foot and mouth disease is transmitted:  
a) All answers are correct b) droplets in) by contact g) through the meat d) through the milk ..
  6. Foot and mouth disease should not be differentiated from:  
a) candidiasis b) acute herpetic stomatitis) wind  
Smallpox d) drug allergy e) erythema.
  7. The causative agent of influenza is transmitted:  
a) airborne b) in the perinatal) nutritional g) parenteral e) sexually.
  8. On the oral mucosa flu appears as:  
a) hemorrhage b) tubercles in) plaques d) coating.
- Correct answers: 1 - and 2 - and 3 - and 4 - and 5 - and 6 - and 7 - and 8 - a.

9. Morphological element in herpes zoster:  
a. b, c \*  
b. bubble  
c. erosion  
d. tubercle  
e. spot
10. Giant multinucleated cells are found at:  
a. b, c \*

b. OGS

c. chronic recurrent herpes

d. candidiasis

e. cheilitis

11. To viral diseases are

a. b, c \*

b. herpes simplex

c. shingles

d. Leukoplakia

e. candidiasis

12. Treatment of lesions in the mouth with foot and mouth disease is carried out with the ointment:

a. b, c \*

b. antiviral

d. antifungal

e. cytostatic

13. Treatment of foot and mouth disease is carried out with the ointment:

a. cytostatic

b. oxalic

14 .. SARS is differentiated:

a. b, c \*

b. OGS

c. drug allergy

d. MEE

e. all the answers wrong

15. To viral diseases are:

@ Herpes simplex \*

@ Leukoplakia,

@ Planus,

@ Pemphigus,

@ Lupus erythematosus.

### **6.3. The practical part**

Purpose: To teach students of the local treatment of OGS

Indications: Diagnosis of diseases OGAN.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills topics. Topical treatment of CSOs'

1. Wearing safety goggles, rubber gloves, gauze mask

2. Application of anesthesia failure.

3. Antiseptic treatment.

4. Application of antibacterial agents in an element of defeat.

## 5. Application of antiviral drugs (in case of the funds.)

Execution of manual skill. (in steps)

"Topical treatment of CSOs."

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauzemask.	0	10	20
2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20
4.	Application of antibiotics: application of an ointment on a cotton ball, fixing it to the affected area	0	10	20
5.	Application of antiviral drugs (in case of application funds.)	0	10	20
	Total:	0	50	100

## 10. Study Questions

1. The etiology and pathogenesis of herpes simplex
2. Clinical manifestations of herpes simplex
3. Clinic simple gerpesa
4. Clinical manifestation of chronic recurrent herpes
5. The etiology and pathogenesis of tine
6. The etiology, clinical gerpanginy.
7. Describe the clinical signs of FMD.
8. The manifestation of influenza in the mouth.

## LESSON № 9

**THEME: «AIDS. Oral manifestations. Clinics. Diagnostics. Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

- To teach students the concept of HIV infection.
- To teach students the methods of diagnosis of AIDS,
  - To introduce the etiologic factors of AIDS
- To teach the students ability to characterize the clinical picture of AIDS
- Train the differential diagnosis,
  - Train the choice of treatment.
  - To familiarize students with preventive measures for the prevention of AIDS
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- What is AIDS
- The cause of AIDS
- The various clinical manifestations of AIDS
- Methods of treating AIDS

##### ***The student should be able to do:***

- determination of the elements of defeat,
- their inspection and palpation
- anesthetic ointment of destruction
- antiseptic

## 4. MOTIVATION

Knowledge of various methods of AIDS treatment is of great importance in preventing and treating AIDS. Necessary to safely carry out all stages of AIDS treatment, to make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, prosthodontics, internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

AIDS - acquired immunodeficiency syndrome - is a secondary immunodeficiency syndrome that develops as a result of HIV - infection (human immunodeficiency virus), is characterized by a decrease in the total resistance of patients to opportunistic micro-organisms (opportunistic infections), increased propensity for cancer, neurological disorders and other manifestations.

PATHOGEN AIDS - the virus HIV, in Russian - HIV belongs to a group of retroviruses that have ferment-reverse transcriptase, which allows to transfer information from RNA to DNA. HIV infects T4 - lymphocytes and causes their death. As a result, the system is disturbed cellular immunity, i.e. have AIDS.

Source of infection - HIV-infected person, or virus.

For HIV-infected persons include all (regardless of their clinical condition) infected with the virus.

After HIV infection within the first 5 years, AIDS develops in 20% of infected individuals for 10 years - 50%.

The causative agent is found in various body fluids: blood, semen, vaginal secretions, breast milk, saliva, tears, sweat, etc.

Infections transmitted only through blood, semen, vaginal secretions and breast milk.

EXPOSURE:

- Sexual - risk group, homo-and heterosexual
- Parenteral - transfusion of infected blood and blood products, sharing needles, syringes, dental, and other instruments contaminated with blood, wash the skin or mucous membranes of the mouth.
- Prenatal - from a woman - the fetus or infant before, during or after birth through breast milk.

Persons infected with HIV are infected for life.

Distinguish the following stages of AIDS:

1. Inkubatsionny period - up to 15 years.

Characterized by: fever for 2-10 days, headache, malign, sore throat, lymphopenia, sore throat, swollen lymph nodes.

2. The initial phase - the syndrome of generalized lymphadenopathy. The dentist should pay attention to the state of submandibular, cervical, parotid and neck lymph nodes.

Increased, the density of elastic consistency, mobile, painless. This state lasts about 3 months. As the progression of lymphadenopathy slowly undergoes regression.

3. The average phase - AIDS - related complex - it is characteristic: the rise in body temperature to 39 ° C for 1 month, diarrhea, weight loss by 10%, weakness, impaired cellular immunity, the presence of typical lesions of the skin and mucous membranes of the mouth, such as hairy leukoplakia, herpeszoster, acute exacerbations of chronic recurrent herpes, acute herpetic stomatitis, candidiasis.

4. Final - the actual AIDS - fatal complications in the form of multiple tumors and severe infections.

The first manifestations - "signs" pointing to the introduction of HIV may be lesions of the mucous membranes of the mouth.

They are:

- The various clinical forms of candidiasis.
- Viral infections.
- Hairy (villous) leukoplakia.
- Ulcer - necrotizing gingivostomatit.
- A progressive form of periodontitis (HIV-periodontitis).
- Kaposi's sarcoma.

Disturbing diseases - squamous cell carcinoma of the oral mucosa, lymphoma (non-Hodgkin's).

THRUSH - the most common intraoral sign of HIV infection.

Characterized by:

- Acute pseudomembranous candidiasis.
- Acute atrophic candidiasis.
- Chronic hyperplastic candidiasis.

Differentiate from lichen ruber planus, allergic stomatitis, traumatic lesions.

Viral infections - in the form of herpes simplex virus with frequent and painful exacerbations.

Hairy leukoplakia (villous leukoplakia, flat kandilomy, oral leukoplakia, a viral).

Is one-and two-way, usually on the lateral surface of the tongue, at least on the mucosa of lips, cheeks, floor of mouth.

Clinically appear as folds or lint-white color, elevate above the surface of the mucous membranes of the mouth, resembling hair. Not scraped off.

Necrotizing gingivostomatitis. Acute its course may last 3 - 4 weeks, then passes into the chronic form, often recurs.

Kaposi's sarcoma - a tumor formed of lymphatics. More often localized in the sky (similar to epulis), rarely on mucous gums. Has the form of bluish or black spots, and then they grow and are divided into shares and willing. Lesions in the mouth to the stage of expression of painful.

#### METHODS DIAGNOSTIC

The diagnosis is established in the laboratory in detecting specific antibodies to the virus.

Applies to:

- Linked immunosorbent assay (ELISA).
- Western blot (Western blot) or indirect immunofluorescence.
- Study of the immunological status, as ratio decreases in HIV-infected T-helper and T-suppressor, reduces the number of leukocytes and lymphocytes, increases the content of immunoglobulins, especially A and G.

Preventing HIV infection - INFECTION

The fight against HIV infection includes:

- Precautions against blood and other fluids.
- Precautions for injections and procedures related to the piercing of the skin.
- Effective implementation of sterilization and disinfection.

#### TACTICS DOCTOR - DENTIST

- Use personal protective equipment medical staff: gloves, goggles and masks.
- The use of disposable syringes and needles.
- Sterilization of medical instruments.
- The use of disinfecting high-intensity, based on the heat (boiling, autoclaving, sterilization of dry hot air).

**Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

## **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

## **Application Control and questions for review:**

1. Name the source of infection and AIDS.
  2. The clinical picture of candidiasis in AIDS.
  3. Hairy leukoplakia. The clinical picture.
  4. Describe sarcoma clinical picture.
  5. Necrotizing stomatitis in AIDS.
  6. Viral infections in AIDS.
  7. The clinical picture of periodontitis in AIDS.
  8. The tactics of a dentist.

## **Answers:**

1. The source of infection of AIDS is HIV - infected person or virus carrier. For HIV-infected persons include all (regardless of their clinical condition) infected with the virus. After HIV infection within the first 5 years, AIDS develops in 20% of infected individuals over 10 years-50%. Pathogen found in various body fluids: blood, saliva, tears, sweat and etc. Sending infection only through blood, semen, vaginal secretions and breast milk.
  2. Candidiasis is the most common intraoral sign of HIV infection. Characteristically, acute pseudomembranous kandidios, acute atrophic candidiasis, chronic hyperplastic candidiasis. Differentiate from lichen rubber planus, allergic stomatitis, traumatic lesions.
  3. Hairy leukoplakia (villous leukoplakia, flat kandilomy, oral leukoplakia, a

viral). Sometimes one-and two-way, usually on the lateral surface of the tongue, at least on the mucosa of lips, cheeks, floor of mouth. Clinically appear as folds or lint-white color, elevate above the surface of the mucous membranes of the mouth, resembling hair. Not scraped off.

4. Kaposi's Sarcoma-a tumor formed of lymphatics. More often localized in the sky (similar to epulis), rarely on mucous gums. Has the form of bluish or black spots, then they increase the share split and ulcerate at. Lesions in the mouth are painful to the point of ulceration.

5. Necrotizing stomatitis. Acute it may continue for 3-4 weeks, then passes into the chronic form, often recurs.

6. Viral infections in AIDS. Characteristic lesions of the oral mucosa with herpes simplex frequent and painful exacerbations, herpes zoster and viral warts.

7. There is an aggressive form of periodontitis with generalization process in periodontal tissues: bleeding, gingival hyperplasia, tooth mobility, diffuse destruction of bone tissue with alveolar sequestration of interdental septa.

8. The tactics of the doctor - dentist: the use of personal protection of medical staff: gloves, goggles, masks, disposable syringes, needles, sterilization of medical instruments, the use of disinfecting high-intensity, based on the heat (boiling, autoclaving, sterilization of dry hot air.

## **6.2. ANALYTICAL PART**

Situational problem number 1.

Patient 40 years old, gay, and complains of chronic fatigue, body temperature, 37.5 g, lingering pneumonia. From the side of the mouth complaints bleeding gums, bad breath, the presence of the AFL. OBJECTIVE: gums are swollen, hyperemic, bleeding. On the oral mucosa cheeks, tongue, lips, there are naphtha round, various sizes, lined with red rim, covered with fibrin us plaque, painful, long-term healing. Submandibular, parotid lymph nodes are enlarged, soft, mobile, and painless.

A) Spend an additional method of treatment:

- a) X-ray,
- b) isolating the virus,
- a) cytological,
- d) EDI
- e) biopsy.

B). Put a diagnosed

- a) syphilis,
- b) candidiasis
- a) AIDS
- g) MEE,
- e) pemphigus

In). Differential diagnosis:

- a) CPL
- b) candidiasis,
- a) HRAS,
- d) primary syphilis,

e) lupus erythematosus

Correct Answers: A-B, B-, B-B.

Situational problem number 2.

Patient 28 years complained of weak painful tongue, burning, unusual its appearance. Anamnesis: The patient is registered with the psychiatrist leads a hectic life. When viewed from the oral cavity: all over the sides of the tongue has a grayish-white plaque formation atypical, closely knit with the underlying foundation of growths resembling hair (due to the filamentous growths of the epithelium). The use of antiviral drugs only temporarily suspends the process, but does not lead to the disappearance of the hearth.

A). Preliminary diagnosis:

a) desquamative glossitis,

b) hairy leukoplakia,

a) "black" language

g) diamond glossitis,

e) folded tongue

B).

An additional method:

a) The immuno-reaction bioting (western biotas)

b) bacteriological,

a) cytological,

g) sample,

e) The blister test.

In.) Specific reaction has identified:

a) Staphylococcus aureus.

b) the streptococcus,

c) spindle-shaped stick,

r) the virus

e) The spirochetes.

Correct Answers: A-B, and B-, B-, the

Situational problem number 3.

In HIV-infected patients 38 years and not the back sides of the tongue there are parts of the desquamation of red in the form of rings. In the area of desquamation of papillae are clearly visible mushroom, having a form of bright red dots.

A) Put a diagnosis:

a) tongue cancer,

b) lichen planus,

a) HRAS,

d) desquamative glossitis,

e) diamond glossitis.

B) Additional method:

a) The immuno-reaction bioting (western biotas)

b) bacteriological,

a) cytological,

- g) sample,
  - e) The blister test.
  - B) The tactics of a dentist:
    - a) The refusal to receive the patient,
    - b) A general treatment only,
    - c) holding only a local antiseptic treatment,
    - g) that specialized in honey. agency
    - d) All answers are correct
- Correct answer: A-i, and B-, B-, the

Situational problem number 4.

A patient 29 years (presumably addict) suspicion of HIV infection. To confirm the diagnosis it is necessary to conduct a survey:

- a) reaction
- b) microbiological
- c) the microscopic
- g) myography

5. A patient suffering from AIDS 35 years appealed to the dentist over strong nocturnal pain in the tooth 44. The pain is worse from all types of stimuli, as sometimes happens for no reason. In the treatment of the tooth the dentist must use a tip

- a) mechanical
- b) Turbine
- c) ultrasonic
- d) the blasting
- d) does not matter

6, after providing dental care HIV-infected patient tools necessary time and mode of Dry Heat Sterilization:

- a) 120 degrees - 45 minutes
- b) 120 degrees - 60 minutes
- c) 180 degrees - 45 minutes
- g) 180 degrees - 60 minutes
- d) 100 degrees - 120 minutes

Tests:

1. Etiologic agent of AIDS

- a) virus
- b) Staphylococcus aureus
- a) fungi
- g) spirillum
- e) stick Leffler

the correct answer and 1.

2. AIDS is transmitted:

- a) All answers are correct

- b) sexual
- c) perinatal
- g) + sexually perinatal

the correct answer and 2.

3. With AIDS in the oral cavity is observed:

- a) All answers are correct
- b) hairy leukoplakia
- a) candidiasis
- g) Kaposi's sarcoma
- d) infection

the correct answer and 3.

4. AIDS is revealed:

- a) the specific reactions
- b) the electric pulp test
- d) histological method
- e) fluorescent diagnostics

the correct answer :4-a.

5. For disinfection of dental instruments used in AIDS:

- a) 30% solution of hydrogen peroxide
- b) KMPO
- a) 1% solution of chlorine bleach
- g) distilled water
- e) a saturated solution of resorcinol

the correct answer and 5.

6. HIV primarily affects system him:

- a) The immune
- b) The hematopoietic
- a) cardiovascular
- g) the gastro-intestinal
- e) The endocrine

the correct answer :6-a.

7. Hairy leukoplakia, a differential diagnosis is not carried out with:

- a) black, "hairy" tongue
- b) a true leukoplakia
- c) lichen planus
- d) hyperplastic candidiasis
- e) oral lesion with symptoms

the correct answer and 7.

8. During the distinction of HIV (matched):

- 1) Stage 1
- 2) Stage 2
- 3) Stage 3
- 4) stage 4
- a) Primary
- b) "AIDS-related-complex"

- c) "intermediate stage"
- d) "late"

the correct answer and 1-2-b, 3-to 4-g.

9. AIDS is revealed:

- a. b, c \*
- b. specific reactions
- c. release of virus
- d. by histological
- e. fluorescence diagnostics

10. For disinfection of dental instruments used in AIDS:

- a. b, c \*
- b. 30% solution of hydrogen peroxide
- c. 2% solution
- d. 1% solution of chlorine bleach
- e. distilled water

11 .. HIV - infection is diagnosed by:

- a. All answers are correct \*
- b. immunosorbent
- c. immunoblotting
- d. immunofluorescence
- e. release of virus

12. Transmission of HIV - infection:

- a. b, c \*
- b. contaminated dental instruments
- c. breast milk
- d. respiratory

13. AIDS passed through, except:

- a) Air - drip \*
- b) sexual
- c) parenteral
- d) Food \*
- e) contact \*

14. At AIDS in the oral cavity is observed:

- a) hairy leukoplakia \*
- b) naphtha
- c) candidiasis \*
- d) Kaposi's sarcoma \*
- e) blister

### 6.3. The practical part

**The Execution of manual skills. (step by step) manual skills, "Methods of examination of patients with diseases of the oral mucosa."**

**Purpose:** To teach students the methods of examination of patients with diseases

of the oral mucosa.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of patients with diseases of the oral mucosa."

- 1 Wear protective equipment.
- 2 Conduct a visual inspection the patient.
3. inspection of the vestibule of mouth (jaws being closed)
4. Properly inspect the oral cavity.
5. Palpate the salivary glands

### **Manual skill methods of examination of patients with diseases of the oral mucosa.**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipments	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	Properly inspect the oral cavity	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### **10. Study Questions**

1. What is AIDS?
2. What is the causative agent of AIDS?
3. List the ways of AIDS transmission.
4. List the stages of AIDS.
5. Forms of manifestation of AIDS in the oral mucosa.
6. Methods of diagnosis of AIDS
7. Prevention of AIDS
8. Methods for decontamination of dental instruments.

## LESSON № 10

**THEME: «Vincent's acute necrotizing ulceromembranous stomatitis. Clinics. Diagnostics. Differential diagnostics. Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

### 3. SESSION PURPOSE

- To teach students the concept of necrotizing gingivitis stomatitis Vincent;
- To teach students methods of diagnosing necrotizing gingivitis stomatitis Vincent;
- To introduce the etiological factors necrotizing gingivitis stomatitis Vincent;
- To teach the students ability to characterize the clinical picture of necrotizing gingivitis stomatitis Vincent;
- To teach differential diagnosis;
- To train the choice of treatment;
- Provide students with preventive measures to prevent necrotizing gingivitis stomatitis Vincent;
- To teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### **The student should know:**

- Clinic necrotizing gingivitis stomatitis Vincent;
- The cause of necrotizing gingivitis stomatitis Vincent;
- The various clinical manifestations of necrotizing gingivitis stomatitis Vincent;
- Treatments for necrotizing gingivitis stomatitis Vincent.

##### **The student should be able to do:**

- Identify the elements of defeat, their inspection and palpation;
- Elimination of traumatic local factors;
- Fluorescent method of investigation;
- Anesthesia ointment of destruction;
- Antiseptic;
- Application of the element defeat.

## 4. MOTIVATION

Knowledge of various techniques for treating necrotizing gingivitis stomatitis Vincent is important in the prevention and treatment of necrotizing gingivitis stomatitis Vincent. Must be useless to carry out all stages of treatment necrotizing gingivitis stomatitis Vincent, to make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of the students of anatomy, histology, biochemistry, path physiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Physiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

ULCER NECROTIC Gingivitis Stomatitis VINCENT (Stomatitis ulceronecroticans) infection.

Synonyms: "trench" mouth, sore throat, hepatitis, Simonov - Plait-weight.

Etiology: - bacterial, pathogens: fusiform bacillus and spirochete (Borelli) Vincent.

Predisposes factors:

1. Poor oral care mouth.
2. Cooling, overheating, fatigue, stress, poor nutrition.
3. Violation of the integrity of the oral mucosa (chronic injury, periodontitis).
4. Transferred mucosal disease: influenza, herpetic stomatitis, allergic stomatitis, exudative multiforme eritema.

5. Related common diseases - leukemia, agranulocytosis, infectious mononucleosis, salts of heavy metals poisoning, hypo - and avitaminosis.

Currents: acute, chronic - months, years, prone to relapse, seasonality.

Clinic: An element of defeat - ulcers. Ulcer size up to 5-6 cm in diameter.

Location: any department of the mouth, often gums area, sex organs, glands. The bottom is covered with masses, easily removed, exposing the surface of bleeding. At the base of ulcers seals do not.

Age and gender of patients: 17-30 years, mostly men.

General condition: temperature 37,5-38,0 C. At the beginning of the disease may be normal, disturbed sleep, prone to fainting. In chronic reading can not be changed.

Forecast: not life-threatening patient, but without treatment can lead to necrosis and death of bone process, tooth loss in a short time. Self-healing does not occur. Examination of the patient begins a dentist, consult your doctor - internist, hematologist to determine the background pathology.

Blood tests: a slight leukocytosis, left shift, a slight increase in erythrocyte sedimentation rate, aggravated by a case - grainy neutrophils.

Histological studies: the discharge of ulcer surface area necrotic, deep - educational. Inflammatory. In the necrotic zone: coccid, rods, spirochete, fuzobactery. In the area of inflammation: the predominance of fuzobactery.

Cytology consistent non-specific inflammation in early disease predominance of disintegrating neutrophils, phagocytosis absence of the user, the abundance of structure less mass, red blood cell.

Differential diagnosis:

- Leukemia and agranulocytosis;
- Poisoning by salts of heavy metals (mercury);
- Syphilitic ulcers -
- Hypo- and avitaminosis.

TREATMENT: general and local

It should not be in the acute period:

1. remove teeth;
2. producing cuts;
3. to make any injections in the vicinity of ulcers.

General treatment: action -

- Metronidazole (trihopol) flagin, Klion - 0.25 g twice Days by within 7-10 days.

In severe cases - antibiotics wide Specter's actions (bitsillin - 3 to 300 000 IU every three days or 600 000 IU every 6 days.

- Eritromitsin, oletetrin, oxytetracycline, a daily dose of 800 000 - 1000000 units within 5-10 days.

- B Vitamins: B1 - 2% to 1.0 v/m-10 injection, B2 - 0.01 3 times daily for 30 days, askorutin to 0.1 g orally 2 times a day 10-14 days.

Obezbolevanie: 1% solution trimekaina, 1-2% solution piromekaina, 2%, 10% lidocaine solution in the form of application or injection.

Removal: mechanical stimuli sharp edges of teeth and dentures, removal of stone and plaque.

Antiseptic treatment of enzymes:

Trypsin, chymotrypsin, lizoamidaz.

Warm solution of 0.5% peroxide% hydrogen, 14% solution of bleach, 0.6% chlorhexidine solution.

- Applications of gruel trihopol on the water
- Applications of lysozyme

## **Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Application Control and questions for review:**

- 1 Etiological factors ULCER Necrotizing Gingivitis Stomatitis VINCENT two factors of Necrotizing Gingivitis Stomatitis ULCER VINCENT
- 3 The most frequent localization ULCER Necrotizing Gingivitis Stomatitis VINCENT
- 4 Methods of study patients with ulcerative Gingivitis Necrotizing Stomatitis VINCENT

## Answers

1. Bacteria, germs: fusiform bacillus and spirochete (Borrelia) Vincent.

2 Poor oral care mouth.

Cooling, overheating, fatigue, stress, poor nutrition.

Violation of the integrity of the oral mucosa (chronic injury perikoronarity, periodontitis).

Transferred mucosal disease: influenza, herpetic stomatitis, allergic stomatitis, exudative multiforme eritema.

Related common diseases - leukemia, agranulocytosis, infectious mononucleosis, salts of heavy metals poisoning, hypo - and avitaminosis

3. any department of the mouth, often gums retromolar area, sex organs, glands. The bottom is covered with masses, easily removed, exposing the surface of bleeding. At the base of ulcers seals do not.

4. Blood tests: a slight leukocytosis, left shift, a slight increase in erythrocyte sedimentation rate, aggravated by a case - grainy neutrophils.

Histological studies: the discharge of ulcer surface area necrotic, deep - educational. Inflammatory. In the necrotic zone: cocci, rods, spirochete, fusobacteria. In the area of inflammation: the predominance of fusobacteria.

Cytology consistent non-specific inflammation in early disease predominance of disintegrating neutrophils, phagocytosis absence of the user, the abundance of structure less mass, red blood cell.

## 6.2. ANALYTICAL PART

Situational problem number 1.

The patient, aged 18, complained of fever up to 38.0 C, headache, pain in the mouth when eating, bleeding gums, bad breath.

Anamnesis revealed that he had a flu and colds confirmed clean. After the influenza status in 12 days has a description of the above condition.

On examination of the oral mucosa: mucosa, swelling, gingival papillae are swollen, and in the third lower molar, gray-green patina. Upon removal of plaque formed a bleeding surface. Ulcer bed is not compacted. Regional lymph nodes are painful, enlarged, movable.

Cytological studies: scraping with ulcer reveals symbiosis fusiform bacilli and spirochetes.

A) identify the morphological element of defeat:

- a) tubercle
- b) the ulcer
- c) the pustule
- d) an abscess,
- e) The rumen

B) Spend an additional method of investigation:

- a) Schiller - Pesaro;
- b) Kulazhenkov,
- d) blood test
- d) Bacteriology.

B) Place the diagnosis:

- a) leucoplakia,
- b) candidiasis,
- c) secondary syphilis
- d) systemic lupus erythematosus,
- d) Necrotizing Gingivitis Stomatitis Vincent

D) Treatment:

- a) antiseptic processing enzymes
- b) 2% solution of analgesia lidocaine,
- g) trihopol,
- e) B-vitamins,
- e) All answers are correct

Correct answers:

- A) b
- B) d
- B) d
- T) e

Situational problem number 2

Patient 30 years old diagnosed with ulcerative stomatitis neurotic Vincent. Of concomitant and previous diseases - frequent colds. Make a plan of treatment.

Answer: The general treatment (anti-inflammatory, stimulating, tonic), local (pain relief, antiseptic and enzyme treatment, drugs), it is recommended inpatient treatment.

Situational problem number 3

The patient turned 20 years old to high body temperature to 38 ° C, headache, sore mouth, especially aggravated by eating, gum zapohisorta.

Objectively: submandibular lymph nodes were enlarged, the mucosa in the oral cavity field cheeks, soft palate i in large areas. Bacteriological study.

A. Put a prior diagnosis

- a) ulcerative - neurotic stomatitis Vincent \*
- b) leukemia
- c) agranulocytosis
- d) poisoning by salts of heavy metals
- e) erythema

B. Conduct additional research methods:

- a) cytological \*
- b) test Schiller - Pesaro
- c) test Aldrich
- d) test Ratter
- e) sample Kulazhenkov

B. What method of treatment prescribed:

- a) A general treatment
- b) anesthesia

- c) appliqué metrogildent
- d) appliqué protioliticheskikh enzymes
- e) All answers are correct \*

#### Situational problem № 4

In the TMA vehicle department employee called emergency services with complaints of headache, general weakness, painful oral mucosa, increasing when eating, talking, bleeding gums, putrid breath. Anamnesis revealed that removal was carried out 38 of the tooth, which appeared after the increase in body temperature to 37,5 ° C

**OBJECTIVE:** marked catarrhal phenomenon of the oral mucosa, the gingival mucosa observed necrotizing process area, with exposure of the alveolar ridge, hyper salivation, putrid breath. The general condition of the patient difficult.

1. Put a diagnosed

A: necrotizing stomatitis 2. Make a plan for further treatment:

Answer: The general treatment (anti-inflammatory, stimulating, tonic), local (pain relief, antiseptic and enzyme treatment, keratoplasticheskie drugs), it is recommended inpatient treatment.

#### Tests

1. Pathogen necrotizing gingivostomatita Vincennes: (ulcerative Gingivitis Necrotizing stomatitis) in peptic Necrotizing Gingivitis Stomatitis Vincent:

- A) bursiform bacillus, fuzobakterii. \*
- B) Staphylococcus, Streptococcus spp.
- B) E. coli.
- D) Viruses

A) Fungi

2. The element in ulcer Necrotizing Gingivitis Stomatitis Vincent:

- A) Ulcer \* B) tubercle B) Vial D) Bladder d) Node

3. Necrotizing Gingivitis Stomatitis ULCER Vincent does not differentiate:

- A) leukoplakia .\* B) leukemia. B) poisoning by salts of heavy metals d) syphilitic ulcers D) C hypovitaminosis

4. In the treatment of peptic Necrotizing Gingivitis Stomatitis Vincent effective topical treatment:

- A) .\* trihopol B) Oksolin. B) Tebroyen. D) dekamini. A) Nystatin

5. Necrotizing Gingivitis Stomatitis ULCER Vincent is more common in debilitated persons:

- A) \* Young B) 40-50 years) Senior D) Newborn D) in all

6. In gastric Necrotizing Gingivitis Stomatitis Vincent's patients complain not:

- A) Eruptions on the skin \*
- B) and oral pain
- B) Bad Breath
- D) bleeding gums
- D) the general weakness

7. In gastric Necrotizing Gingivitis Stomatitis Vincent in general, the treatment is prescribed:
- A) metronidazole, vitamins (antihistamines) \*
  - B) corticosteroids, vitamins.
  - B) antibiotics, sulfonamides (vitamins)
  - D) cytotoxic agents, vitamins,
  - D) antipyretic analgesics.
8. Bacterial study of a large number of spirochetes fuzobacteria and characteristic:
- A) Necrotizing Gingivitis Stomatitis ULCER Vincent \*
  - B) Leukoplakia
  - B) lichen planus - RGK
  - D) erythema multiform
  - A) Chronic recurrent aphthous stomatitis.
9. Necrotizing Gingivitis Stomatitis ULCER Vincent does not differentiate:
- a. b, c \*
  - b. planus
  - c. leukoplakia
  - d. leukemia
  - e. poisoning by salts of heavy metals
10. Canker sores are also called Vincent's
- a. All answers are correct \*
  - b. ulcerative stomatitis membranous
  - c. "Trench mouth"
  - d. Plaut-Vincent's stomatitis
  - e. fuzospirohetozny stomatitis
11. Vozbuditeli Vincent stomatitis:
- a. b, c \*
  - b. fusiform bacillus
  - c. spirochetes
  - d. tubercle bacillus
  - e. pale treponema
12. Stomatitis with Vincent's differentiate:
- a. All answers are correct \*
  - b. leukemia
  - c. poisoning by salts of heavy metals
  - d. syphilitic ulcers
  - e. hypovitaminosis C
13. Vincent's stomatitis predisposing factors are:
- a. All answers are correct \*
  - b. cooling, fatigue
  - c. reduction in mucosal body
  - d. Vitamin deficiency
14. Dlya stomatitis is characterized by Vincennes, except
- a) pain on the skin \*
  - b) pain in the mouth

- c) dizziness \*
- d) Bad Breath
- e) dry mouth

### 6.3. The practical part

#### Manual skill

#### Conducting necrotic tissue of the oral mucosa.

Purpose: To teach students the local treatment of the oral mucosa in patients.

Indications: Local treatment of necrotic tissue of the oral mucosa.

Equipment: Dental chair unit, dental standard set, antiseptics, anesthetics, cotton rolls, enzymes keratoplasty.

#### Manual skill methods of examination of patients with diseases of the oral mucosa.

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipments	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	Properly inspect the oral cavity	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. What is AIDS?
2. What is the causative agent of AIDS?
3. List the ways of AIDS transmission.
4. List the stages of AIDS.
5. Forms of manifestation of AIDS in the oral mucosa.
6. Methods of diagnosis of AIDS
7. Prevention of AIDS
8. Methods for decontamination of dental instruments.

## LESSON № 11

### THEME: «Mucosal lesions of tuberculosis.»

#### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

#### 2. DURATION OF STUDY SUBJECTS

Hours - 390 minutes

#### 3. SESSION PURPOSE

- To teach students the concept of tuberculosis;
- To teach students methods of TB diagnosis;
- To introduce the etiologic factors of tuberculosis;
- To teach the students ability to characterize the clinical picture of tuberculosis;
- To teach differential diagnosis;
- To train the choice of treatment;
- Provide students with preventive measures for the prevention of tuberculosis;
- To teach them the proper execution of manual skills step by step.

#### Tasks:

##### The student should know:

- Clinic of Tuberculosis;
- The cause of tuberculosis;
- The various clinical manifestations of tuberculosis;
- Methods of treating tuberculosis.

##### The student should be able to do:

- Identify the elements of defeat, their inspection and palpation;
- Elimination of traumatic local factors;
- Fluorescent method of investigation;
- Anesthesia ointment of destruction;
- Antiseptic;
- Application of the element defeat.

#### 4. MOTIVATION

Knowledge of different methods of treatment of tuberculosis is important in the prevention and treatment of tuberculosis. It must be useless to all stages of the tuberculosis treatment to make the right choice of tools and products. The

resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Physiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Tuberculosis - a chronic infectious disease caused by mycobacteria tuberculosis (tubercle bacillus in 1882)

Route of infection:

- 1) Exogenous
- 2) endogenous (gemotogeny, lymphogenous. Per continentatum)

In the pathogenesis of tuberculosis plays an important role:

- 1) The severity of the current total of tuberculosis;
- 2) the immunological status of the organism;
- 3) the nature of power;
- 4) housing - living conditions;
- 5) The neuron-endocrine disorders.

Distinguished:

- a) the primary disease, which practically does not occur in the oral cavity.
- B) Tuberculosis, which appears in the form of tuberculosis lupus, mioiarlo-ulcerative tuberculosis.

Primary tuberculosis of lips and oral mucosa

Or primary tuberculous complex or primary tuberculous chancre is the result of exogenous contamination through damaged oral mucosa and lips:

- air - drop;
- nutritional;
- develops on the background of energy (negative TB reactions)

Incubation period: 8-30 days

Clinical signs:

On the site of introduction of infection occur:

- ulceration of the size of 1-1.5 cm;
- Territory - sapped and rough, dense;
- bottom - seal, dirty-gray;
- 2-4 weeks and increased condensed lymph nodes;
- first lymph nodes are mobile, then soldered together and the skin, then suppurate and hide

Currents:

- adverse (for the generalization of tuberculosis), especially in infants;
- Suitable (and sometimes resolved without treatment).

Secondary tuberculosis:

1. Tuberculin skin lupus

Characterized by:

- 1) a chronic course;
- 2) the most frequently encountered;
- 3) persistent current;
- 4) a tendency to relapse

Localized:

- on the face (75% of patients)
- the red border of the upper lip%
- on the nose.

The primary element Lyupoma (bump)

- Lyupoma is: Education
- limited F;
- flat (first)
- the size of a pinhead;
- yellow-red or red

Lymphoma inclined:

- preferable to growth;
- merge with neighboring elements;

Diagnosed with:

- vitropression (simptom apple jelly)

Foci of tuberculous lupus:

- ulcerate;
- The edges of the moth;
- The bottom is covered with mud and gray patina. Or covered with granulation sprawling
- irregular shape;
- A red border of lips crusted
- In place of the lesion formed scar atrophy sometimes rude ugly scars.

In the oral cavity is localized tuberculosis lupus more:

- The gum
- The hard palate
- Soft palate

Clinically distinguish four stages of the flow of Lukomsky IG

- infiltrated
- Bugorkov
- ulcer
- scar

Types of lesions of the oral mucosa of I.T. Lukomkomu

- marginalized
- supramarginal
- total
- a bilateral

Histologically defined: tubercle tubercular in mesh layer of connective tissue consists of:

- Giant
- Plasma
- epithelioid cells
- Lymphocytes

Absent:

- Elastic
- Collagen fibers

The differential diagnosis is carried out with:

- Bugorkovsyphiloderm
- Leprosy
- lupus erythematosus

TB (or skrofuloderma) on the oral mucosa. Are extremely rare in most children. Characterized by the appearance of nodes, which are gradually softened and gradually soften and ulcerate, stands with bloody pus, formed an ulcer.

An ulcer is:

- an irregular shape
- Soft
- The edges sapped moth

- The bottom is covered with granulation sluggish
- An ulcer is not interconnected passages

Scrofuloderm differentiated from:

- syphiloma
- On site at aktinominoze
- decaying cancer

Military tuberculosis, ulcerative arises as a result of inoculation tuberculosis from sputum microbacteria in the oral mucosa.

There are:

- In debilitated patients
- have active tuberculosis, lung and laryngeal
- are ill men

In miliary tuberculosis, ulcerative:

- The tubercle or reddish or grayish-yellow dot = education
- microabscesses
- Ulcer
- lymphadenitis

The nature of ulcers:

- Ulcers in the beginning point
- Next, merge and form an ulcer with a diameter up to 2.5 cm
- Shallow
- Sharply painful
- irregular
- The edges eaten away sapped
- Soft
- Around her remarkable inflammatory infiltrate
- The floor is uneven, hilly
- The gray-yellow
- Coverage of papillary growths
- With a little touch of pus and petechial hemorrhages
- The bottom is covered with yellow or grayish-yellow miliary tubercles (the grain trills).

Localization of ulcers:

- The mucous membrane of the sky
- In terms of
- Less on the gums
- cheeks

Differentiate military tuberculosis, ulcerative from:

- ulcers
- Tuberculosis lupus

TREATMENT: general and local

General:

- The TB dispensaries
- adults and 1-1.5 g per day, 607 months
- Children 0.03-0.04 per 1 kg of body weight per day
- Vitamin D2 by 100,000 IU per day in 6-7 months
- Streptomycin for 0.5-1 hours per day for 6-7 months
- Vitamin C, group B
- Total UV treatment
- salt-free diet

Locally:

- Antiseptic processing ulcers. 0.02% p-p hlorgekside
- Oxygenation
- Application of streptomycin and ftivatside
- enzymes
- Rehabilitation of the oral cavity during remission

**Used in this lesson, new teaching technologies: business game "ROUND  
TABLE"  
USE OF "ROUND TABLE".  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participates in classes each student, the teacher works with the entire group.

**Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

**Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

**Application Control and questions for review:**

1. Route of infection:
2. tuberculosis clinic
3. differential diagnosis
4. treatment

**Answers:**

1. Route of infection:

1) Exogenous

2) endogenous ( lymphogenous. Per continentatum)

2. On the site of introduction of infection occur:

- ulceration of the size of 1-1.5 cm;
- Territory - and covered with rough, thick;
- bottom - seal, dirty-gray;
- 2-4 weeks and increased condensed lymph nodes;
- first lymph nodes are mobile, then soldered together and the skin, then suppurate and hide

3. papulose syphiloderm

leprosy

lupus erythematosus

4. General:

- The TB dispensaries
- adults and 1-1.5 g per day, 6-7 months
- Children 0.03-0.04 per 1 kg of body weight per day
- Vitamin D2 by 100,000 IU per day in 6-7 months
- Streptomycin for 0.5-1 hours per day for 6-7 months
- Vitamin C, group B
- Total UV treatment
- salt-free diet

local:

- Antiseptic processing ulcers. 0.02% p-p hlorgekside
- Oxygenation
- Application of streptomycin
- enzymes
- Rehabilitation of the oral cavity during remission

## 6.2. ANALYTICAL PART

Situational problem number 1.

Patient to 48 years, complained of weakness and shortness of breath, chest pain, paroxysmal cough. In the oral cavity mucous membrane in the soft palate with notes ulcer edges eaten away irregularly shaped. At the bottom of the ulcer-like growths occur juicy raspberries.

Put the final diagnosis. A: Tuberculosis erythematosus (lyupoma)

Your tactics. Send the patient to tube. dispensary

Situational problem number 2

A patient suffering from AN open tuberculosis.

In the mouth ulcer observed up to 2.5 cm diam. Ulcer of irregular shape, with edges eaten away sapped, soft consistency. At the bottom of the ulcer is determined by a small amount of yellow-gray tubercles in the form of spots.

On the manifestation of some forms of tuberculosis in question?

Answer: Miliary ulcerative tuberculosis (tuberculosis miliarisulcerosa).

Your tactics.?

A:

Patients examined by the scheme (steps), and send tub. Polyclinics.:

Subjective (history taking vitae and morbid)

Objective methods

A) Basic

Probe

Inspection

Palpation

B) Further studies

vitropression

study of regional lymph nodes

study by Wood's light bulb

4. Direction for Special Studies:

A) Microscopy

B) The reaction Pirquet

B) blood test

5. Treatment:

a) a general trend in tubdispanser.

Situational problem number 3

The child is 4 years. Externally pale, apathetic. Objectively, in the oral cavity in the deep layers of the oral mucosa observed nodes. Sites softened, ulcerated, with pressure observed pus mixed with blood. Ulcers of irregular shape with soft edges sapped. Ulcers are not linked movably.

Place a diagnosis. Determine the form of the disease.

1. The causative agent of tuberculosis.

a. tubercle bacillus \*

b. streptococci

in. staphylococci

on mycobacteria Hansen

2. Tuberculosis of the oral mucosa is more often:

a. primary

b. secondary \*

was congenital

3. Primary tuberculosis primary element of the lesions of the oral mucosa:

and. bubble

b. scale.

in. bump \*

, the crack

4. The most frequently encountered in the oral cavity

a. Primary tuberculosis of lips and oral mucosa

b. tuberculosis lupus \*

in. TB  
was miliary tuberculosis, ulcerative

Situational problem № 4

A patient aged 47, complained of an ulcer in the mouth.

Of history found that the patient is registered in the tuberculosis clinic.

OBJECTIVE: An ulcer is superficial, the bottom is covered with a yellowish or yellowish-red tinge in the presence of proliferating granulation - reminiscent raspberries. When pressed bellied probe, the probe fails.

1. What is the primary element is preceded by an ulcer:

and. spot

b. bump \*

in. nodule \*

, the cyst

on bubble

2. What is the symptom was found in the study bellied probe

and. Nikolsky sign

b. symptom of "apple jelly"

in. symptom Pospelov \*

Mr. symptomvazopareza

on symptom shake granuloma

3. What research can be further

and. EDI

b. thermometry

in. Nikolsky sign

was a symptom of "apple jelly" \*

on percussion

Tests

1. TB is called:

A) tubercle bacillus .\*

B) The yeast fungi of the genus Candida.

B) streptococci.

D) staphylococci

2. Tuberkulez oral mucosa is more often:

A) primary

B) Secondary \*

B) tertiary

D) congenital

3. When tuberculous lupus primary element is:

- A) The tubercle \*
- B) Bubble
- B) Scale
- D) The crack

4. To diagnose Lyupomy used the following methods of diagnosis

- A) X-ray study
- B) vitropression and sensing
- D) vitropression

5. Lupus-carcinoma - a

- A) is equal to the developing of tuberculous ulcers
- B) The ulcer appeared at the place of the collapse of the cancer
- B) ulcer arose from Lyupomy
- D) carcinoma arising in place of chronic fissures

6. Corn Trills are diagnosed with:

- A) Primary Tuberculous Complex-
- B) miliary tuberculosis, ulcerative
- B) tuberculous lupus
- D) tuberculosis

7. Miliary tuberculosis, ulcerative develops in the background:

- A) positive TB reactions
- B) negative tuberculin reactions
- B) to the positive and negative tuberculin reactions
- D) tuberculin reaction does not hold

8. The differential diagnosis of tuberculous lupus is carried out with

- A) papulosesyphiloderm, leprosy and lupus erythematosus
- B) lupus erythematosus, CPL and leykoplastny
- B) papulosesyphiloderm, necrotizing stomatitis Venasana
- D) candidiasis, leprosy, syphilis.

### **6.3. The practical part**

**Purpose: To teach students of the local treatment of the lesion of the oral mucosa**

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment of the lesion of the oral mucosa "

1. Wearing safety goggles, rubber gloves, gauze mask
2. The Application of anesthesia failure.

3. Antiseptic treatment.
4. Application of antibacterial agents in an element of defeat.
5. Application funds.

**Execution of manual skills. (in steps)**

**"Topical treatment of the lesion of the oral mucosa."**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauzmask.	0	10	20
2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20
4.	Application of antibiotics: application on a cotton ball, fixing it to the affected area	0	10	20
5.	Application : application solkoserila on a cotton ball and fixing it on the affected area	0	10	20
	Total:	0	50	100

**10. Study Questions**

1. Which group of diseases is tuberculosis
2. The etiology of tuberculosis
3. Clinical manifestations of tuberculosis
4. Differential diagnosis of tuberculosis
5. Treatment and prevention of tuberculosis

## LESSON № 12

**THEME: «Oral manifestations of venereal diseases. Syphilis. Primary, secondary, tertiary & congenital syphilis. Gonorrhoea. General oral practitioner's tactics.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

- To familiarize students with the diseases of syphilis and gonorrhoea.
- To teach students the methods of diagnosis of syphilis and gonorrhoea.
- To introduce the etiologic factors of syphilis and gonorrhoea.
- To teach the students ability to characterize the clinical picture of syphilis and gonorrhoea.
- Train the differential diagnosis.
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of syphilis and gonorrhoea.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- Complaints of the patient with syphilis and gonorrhoea.
- Which is caused by infection of syphilis and gonorrhoea.
- Modes of transmission.
- Clinical forms of syphilis.
- Stage of the pathological process.
- The most characteristic clinical signs.
- Treatment strategy.
- Preventing the spread of infection.
- The tactics of a dentist.

##### ***The student should be able to do:***

- Identify ways of syphilis and gonorrhoea.
- Diagnose periods of syphilis.
- Tactically to provide first aid and make a treatment plan.
- Anesthesia ointment of destruction.
- Antiseptic.
- Application of drugs to the elements of defeat.
- Measures of precaution and prevention.

#### **4. MOTIVATION**

Knowledge of various techniques for treating syphilis and gonorrhoea is of great importance in the prevention and treatment of syphilis and gonorrhoea. Necessary to safely carry out all stages of syphilis and gonorrhoea, to make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

#### **5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS**

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathology, STI diseases pathological anatomy, microbiology, physiotherapy.

#### **6. CONTENT OF CLASSES**

##### **6.1. The theoretical part**

Syphilis - a chronic disease caused by *Treponema pallidum*. Characterized by:

- An undulating course.
- The gradual and consistent change in clinical and pathoanatomical picture of defeat.

Distinguish between syphilis:

- Congenital.
- Acquired.
- Hidden or unknown.
- Visceral.
- The nervous system.

Syphilis is divided into the following clinical periods:

- The incubation
- Primary
- Secondary
- Tertiary

The incubation period averages:

- 3-4 weeks

However, it may be shortened to:

- Up to 6 months

INITIAL PERIOD OF SYPHILIS - begins with the on-site contamination is introduction of pale treponema, chancre. It takes an average of 6-7 weeks. Harakterizuetsya6 the presence of:

- Chancre
- Regional lymphadenitis
- Poliadenita

The primary period of syphilis is divided into

- Seronegative to 3 weeks from the onset
- Seropositive from 4 weeks of disease

Clinical symptoms:

- Body temperature 38-38,5 C
- Weakness
- Headache
- Pain in bones, especially at night

In PEREFIRICHESKOY BLOOD:

- Small: anemia

Leukocytosis-

- Increase in ESR

Solid chancre appears on:

- Red border of the lips
- Languages
- Tonsils

Chancre begins with the appearance:

- Limited red
- With a sealed base
- Redness, increasing erosion forms a round or oval in diameter, 1-2cm
- The center of her flesh-colored
- Painless
- Saucer-like edges

Histological chancre is:

- A powerful inflammatory infiltrate in the connective tissue layer
- Consists of lymphocytes
- Plasma cells is noted:
- A significant proliferation of endothelial
- Obliteration of the vessels, thrombosis

Atypical forms of solid chancres:

- Chancroid - crack
- Chancroid - bridou
- Yazvennopodobny
- Anginopodobny (amygdalite)
- Combined (ulcerative against anginopodobny)
- Sealed chancre

Differentiate chancre from:

- A simple bubble-stripping
- Shankriformnoypyoderma
- Decaying cancer
- Sores in miliary tuberculosis, ulcerative
- Traumatic erosions and ulcers

Erosions in pemphigus-

Chronically-retsediviruyuscheho canker sores

- Erosion by lichen planus, leukoplakia, lupus erythematosus.

A secondary period of syphilis is divided into:

Fresh-secondary

A chronic secondary begins :6-7 weeks after the chancre.

Fresh secondary syphilis is characterized by:

- The advent of papular and rozeoleznayapustulenoy and skin rash
- Lasts 3-5 years
- Positive serological reactions
- Wavy current
- Poliadenimtom
- Skleradenitom
- Remnants of chancre.

By the end of fresh secondary syphilis:

- Allowed to chancre

Disappears-papular rash, rozeoleznaya

- Disappear regionarnyscleradenitis and poliadenit

It remains positive serological reactions (RW sedimentary, RIF, RIBT)

Top of chronic secondary period of syphilis appear:

Papules,

Roseola-

Warts-wide

- And diffuse alopecia melkoochagovaya
- Leucoderma

Papules and roseola merge into arcs and rings are located at:

- Genital

-In the anus

-In the mouth

Hand-

-Soles

On the oral mucosa are located symmetrically and roseola are to:

Ear-

-The soft palate

Tongue-

Tonsil-

Roseola are:

-Stagnant-red

With a copper-tinged

-With sharp boundaries.

Papules localized on:

Tonsil-

Ear-

-The soft palate

Language-

-Cheek mucosa

-Through the interdigitation

-Gums.

Papules:

-Rather compact, round or oval

-Painless

Grayish-white color

-Surrounded by a hyperaemic rim

-Value from 3 to 10 mm.

Syphilitic papules differentiate from papules at:

Leukoplakia-

Lupus erythematosus-

Red lichen.

Erosive syphilitic papules differentiated from:

-Multi-form erythema

-Bullous pemphigoid

-True pemphigus

Simple bubble-stripping

"Glossy" induration (plaque mown meadows) of

Desquamative glossitis,

Eritrematoznuyu syphilitic angina differentiated from:

Catarrhal angina

-Drug eruptions.

Tertiary syphilis begins after 4-6 years of onset and is characterized by:

Over-long (decades)

-The formation of gum

Diffuse infiltration,

Papulose-eruptions

-No in the discharge of pale treponema

IFA-positive and RIBT.

Tertiary syphilis is:

-Active (or manifest)

-Hidden.

Gummy syphiloderm more often localized at:

- On the soft palate
- The language

Characteristics of gum:

- Often there are single
- First painful
- Rejection if the rod is formed crater ulcer
- The edge of ulcers dense

The bottom is covered with granulation

- Painless

Papulosesyphiloderm less common in the oral cavity. Most often bumps located at:

- Lip mucosa
- Alveolar process

Sky

The bumps on the oral mucosa

- Dense
- Reddish - brown
- With scalloped edges
- A little painful

Tertiary syphilis is differentiated from:

- Miliary - ulcerative tuberculosis
- Cancer of the oral mucosa
- Tuberculous lupus

Tactics dentist

- To diagnose disease
- The direction of the patient in a skin-vein clinic
- Sanitation in remission
- Careful sterilization of instruments
- Use personal protective equipment (disposable masks, gowns, gloves)

Gonorrhea - an infectious disease affecting mainly urinary-genital organs lined with columnar epithelium

May be affected:

- Rectum
- Conjunctiva
- The oral mucosa
- Pharynx

Gonorrhoeagonokokkgrampolozhitelny incubation period of 3-5 days in an average route of infection:

- Endogenous
- Exogenous

There are the following forms of gonorrhea:

- Fresh up to 2 months
- Chronic with prescription of more than 2 years

- Gonokokkonositelstvo

When fresh gonorrheal process are distinguished:

- Acute
- Under urgent
- Torpid

In oral gonorrhea manifested in the form of:

- Gonorrheal stomatitis
- Gonorrheal gingivitis

In the oral mucosa of the oral gonorrhea rtaovozhdaetsya:

- Swelling
- Bright hyperemia
- Soreness

Erosion covered with gonorrhea dirty gray or yellowish coating breath

- Ulceration
- A tendency to bleeding

## TREATMENT

General:

- Required hospitalization of the patient in skin-vein clinic
- Diet therapy (limited admission of acute salt, spices)
- Vitamin (vitamins A, C routines)

Local:

- Analgesia (oral baths, wraps)
- Close toilet antiseptics
- Broad-spectrum antibiotics
- Physiotherapy
- Devices (geliomitsinovaya, eritromitsinovaya)

Test Questions:

1. clinical periods of syphilis:
2. duration of the primary period of syphilis
3. histological structure of the chancre
4. Give the definition of gonorrhea

Answers:

1. - The incubation
  - Primary
  - Secondary
  - Tertiary
2. It takes an average of 6-7 weeks
3. Histological chancre is:
  - A powerful inflammatory infiltrate in the connective tissue layer
  - Consists of lymphocytes
  - Plasma cells is noted:
  - A significant proliferation of endothelial

- Obliteration of the vessels, thrombosis
- 4. Gonorrhoea - an infectious disease affecting mainly urinary-genital organs lined with columnar epithelium. Gonorrhoea gonococcus, gram-positive incubation period of 3-5 days
- May be affected:
  - Rectum
  - Conjunctiva
  - The oral mucosa
  - Pharynx

**Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

**USE OF "ROUND TABLE".  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

**Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Nomerki to draw on the number of students in the group.
3. Blank sheets of paper and pens.

**Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, FIstudents - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.

14. Work remains resident teachers
15. The analysis of responses.

**Application Control and questions for review:**

1. What is syphilis?
2. What is gonorrhea?
3. What caused syphilis and gonorrhea?
4. What characterizes the primary period of syphilis?
5. What characterizes the secondary period of syphilis?
6. What characterizes the tertiary period of syphilis?
7. List the clinical signs of gonorrhea.

**Answers:**

1. Syphilis - a chronic disease caused by *Treponema pallidum*.
2. Gonorrhea - an infectious disease affecting mainly urinary-genital organs lined with columnar epithelium
3. Syphilis is caused by *Treponema pallidum*, gonorrhea caused by gonococci.
4. Characterized by:
  - Chancre
  - Regional lymphadenitis
  - Poliadenita
5. Secondary syphilis is characterized by:
  - The advent of papular and rozeoleznayapustulenoy and skin rash
  - Lasts 3-5 years
  - Positive serological reactions
  - Wavy current
  - Poliadenimtom
  - Skleradenitom
  - Remnants of chancre.
6. Tertiary syphilis is characterized by:
  - Over-long (decades)
  - The formation of gum
  - Diffuse infiltration,
  - Papulose-eruptions
  - No in the discharge of pale treponema
  - IFA-positive and RIBT.
7. In oral gonorrhea manifested in the form of:
  - Gonorrheal stomatitis
  - Gonorrheal gingivitis

In the oral mucosa of the oral gonorrhea rtaovozhdaetsya:

  - Swelling
  - Bright hyperemia
  - Soreness

Erosion covered with gonorrhea dirty gray or yellowish coating breath

- Ulceration
- A tendency to bleeding

## 6.2. ANALYTICAL PART

Case number 1 problem

During the examination of the patient 28 years old ID dentist drew attention to the red-sided amygdala, right-sided amygdala increased in size, sealed, copper-red, painless. The left amygdala is intact. Low tepa 36.7, notes regionarnysklerodentit, poliadenit. Place a diagnosis. Your tactics.

Situational problem number 2

Patient N. 35 addressed to the doctor with complaints, to raise the body temperature to 38.5 C, weakness, headache, aching bones at especially at night. On examination, pale skin, submandibular lymph nodes were enlarged and the chin to the size of a pea, plotnoelastichnoy consistency, b \ b. In peripheral blood: a small anemia, leukocytosis, increased erythrocyte sedimentation rate. In the oral cavity on the lateral surface of the tongue marked erosion of red meat and to see a painless erosion with plotnoelasticheskoy infiltrate at the base. Place a diagnosis. Your tactics.

Situational problem number 3

A patient 19 years suspected chancre on the lower lip. To confirm the diagnosis is necessary to conduct a survey:

- a) serological
- b) the functional
- c) X-ray
- d) histamine test
- e) sample Rotter

Situational problem № 4

In smears prints in a patient 19 years of hard chancre on the lower lip is found

- a) pale treponema
- b) Candida albicans
- c) the tubercle bacillus
- d) fusiform bacillus
- e) the spirochete Vincent

Situational problem number 5

The patient marked papular lesions on the tonsils, ear, soft palate, tongue through the teeth. Papules the size of 3-10 mm, b / w, grayish-white, have a narrow congested crown. When poskablivanie raid on the surface of the papules is removed and the meat underneath is exposed, red erosion.

Place a diagnosis. Determine the stage of disease.

1. Transmission pale treponema:

and. professional

b. sex.

i. congenital

M. abc \*

e. Air droplet

2. Atypical forms of chancre appear

and. in the corners of the mouth

b. in the amygdala

in. on gum

M. abc \*

g on the oral mucosa

3. Tertiary syphilis lasts:

and. decades \*

b. 3-4 weeks

in. 5-7 months.

, 12 months

4. Ulcers in the tertiary period of syphilis:

and. not epithelial

b. heal with scar formation

in. long time to heal with scar formation

r. heal quickly without scarring

Situational problem number 6

In a patient 25 years notes uniform one-sided swelling glands. Amygdala copper-red, painless. On palpation noted regional lymphadenitis. Patient notes nightly bone pains and weakness.

Postulate diagnosis. Determine the stage of disease.

1. The causative agent of syphilis is? (Pale treponema \*)

2. "Lost" syphilis is the result:

and. direct exposure to blood pale treponema

b. sexual route

in. everyday way

3. The primary period of syphilis is:

and. seronegative

b. seropositive

in. and b \*

was such a period is not

The tests.

1. Syphilis is caused by

A. gonococci

B. pale treponema \*

B. oral Trichomonas

M. Koch's bacillus.

2. Headless syphilis occurs as a result of contact with pale treponema:

A directly into the blood \*

B. Sexually

B. in the fetus through the placenta

H. everyday way.

3. The incubation period of syphilis in the middle

- A. 5-6 days
- B. 5-6 years
- V. 3-4 weeks \*
- G. 7-8 months.

4. A secondary period of syphilis begins with a

- A. skleradenita of regional
- B. chancre
- B. poliadenita
- G. papular rash, rozeoleznaya .\*

5. Chancre-amygdalite manifested in the form of:

- A. ulcers
- B. angina \*
- V. crack
- G. bubble stripping.

5. Gonorrhoea is ...

- a) chronic, sexually transmitted disease \*
- b) an acute infectious disease
- c) leather disease
- d) the urogenital system disease
- d) seasonal disease

7. Gonorrhoea

- a) gram negative cocci \*
- b) gram positive cocci
- c) spirochetes
- d) tubercle bacillus
- e) pale treponema

8. Gonococcus is often determined

- a) in the rectum, conjunctiva, oral mucosa, larynx \*
- b) the urinary channels \*
- a) stomach
- g) of carious teeth
- e) for cracks in the rear aisle

9. Types of gonorrhoea

- a) fresh, chronic carrier \*
- b) acute, chronic
- c) a chronic carrier state
- d) a prolonged, carriage

e) The primary, secondary

10 .. Fresh gonorrhoea proceeds periods

- a) acute, subacute, torpid \*
- b) acute, chronic
- c) the lightning
- d) a prolonged latent
- e) all of the

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of the lesion of the oral mucosa

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment of the lesion of the oral mucosa "

1. Wearing safety goggles, rubber gloves, gauze mask
2. Application of anesthesia failure.
3. Antiseptic treatment.
4. Application of antibacterial agents in an element of defeat.
5. Application keratoplasticheskikh funds.

#### Execution of manual skill. (in steps)

**"Topical treatment of the lesion of the oral mucosa."**

No	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauze mask.	0	10	20
2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20

4.	Application of antibiotics: application of an ointment linkomitsinovoy on a cotton ball, fixing it to the affected area	0	10	20
5.	Application of keratoplasticheskih: application solkoserila on a cotton ball and fixing it on the affected area	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Which group of diseases include syphilis and gonorrhea?
2. The etiology of syphilis?
3. The etiology of gonorrhea?
4. Clinical manifestations of syphilis?
5. Clinical manifestations of gonorrhea?
6. Differential diagnosis of syphilis?
7. Treatment of gonorrhea?
8. Treatment and prevention of syphilis?

## LESSON № 13

### **THEME: «Candidiasis (moniliasis). Oral manifestations. Clinics. Diagnostics. Therapy.».**

#### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

#### 2. DURATION OF STUDY SUBJECTS

Number of hours - 390 minutes

#### 3. SESSION PURPOSE

- Provide students with the concept of candidiasis;
- The clinical manifestations of candidiasis in the oral cavity.

#### **Tasks:**

##### ***The student should know:***

- The cause of candidiasis;
- Additional methods of examination of candidiasis;
- If necessary, refer the patient to a specialist (mycologist).

##### ***The student should be able to:***

- The right to make an effective plan for treatment of candidiasis;
- To conduct pharmacological treatment;
- To choose antifungal drugs.

#### 4. MOTIVATION

Knowledge of different clinical forms of candidiasis is important in the diagnosis and differential diagnosis of candidiasis from other diseases with similar clinical signs and make an effective plan for treatment of candidiasis. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

#### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology,

physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Phthisiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Candidiasis - a disease caused by a yeast-like fungi of the genus *Candida*. Mushrooms of the genus *Candida* widely spread in nature, are saprophytes and are found in an inactive form in 50% of the population. The disease is caused by yeast-like fungi of the genus *Candida*.

Forms of candidiasis: 1. Mucosal candidiasis (thrush, candidiasis gums, tongue candidiasis, corners of the mouth) 2. Candidiasis of the skin 3. Visceral (systemic) candidiasis.

Differentiated from leukoplakia, CPL, white sponge nevus, the manifestations of allergic reactions in the oral cavity.

Treatment: 20% solution of sodium borate in glycerol, p-ry aniline dyes (methylene blue, purple, antifungals 2-3% solution potassium iodide in 1 tbspoon into 2-3 times a day, amphotericin B, kanesten, multivitamins (B, PP and C).

Prevention: proper oral care, long-term treatment with antibiotics and corticosteroids - the appointment of nystatin or levorin to 1500000 Ed daily multivitamin alkaline irrigation.

Dental health, good prosthetics, oral hygiene, prolonged antibiotic therapy, alkaline rinse, oral administration of nystatin, a multivitamin.

White patches in the oral candidiasis consists of: desquamated epithelial cells, fibrin, food debris, bacteria, yeast mycelium.

Pathogenicity of fungi of the genus *Candida* appears in:

O CAN-damaged, diseases of the gastrointestinal tract, metabolic disorders (particularly carbohydrate), violation of vitamin balance (lack of riboflavin, pyridoxine, nicotinic acid), reduced reactivity of the organism as a result of chronic infection, chronic administration of antibiotics, prolonged use of corticosteroids and cytostatics.

Candidiasis can occur in patients with diabetes, in individuals whose work involves the processing of fruits and vegetables, confectionery industries workers, dishwashers, housekeepers, infants.

Clinical manifestations of candidiasis depend on age, condition of the patient, concomitant diseases, medication.

Thrush develops most often in infants, frail people, people with diabetes, blood diseases, vitamin deficiencies, in patients receiving long-term corticosteroids, cytotoxic drugs, antibiotics.

Thrush localization of the mucous membrane of cheeks, palate, tongue, gums, larynx, pharynx, esophagus.

Candidiasis is characterized by the appearance of a white plaque difficult to discharge in after removal of plaque exposed smooth, edematous, hyperemic surface.

Mycotic bridou occurs in the elderly, with understated bite, adentia, the pathological removal of dental prostheses made incorrectly, those with deep folds in the corners of his mouth.

Mycotic'll pick differentiated from streptococcal bridou, syphilitic papules localized at the corners of his mouth.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE".**

#### **METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, FIstudents - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Application Control and questions for review:**

1. What is Candida?

2. What is it called?
3. What forms of candidiasis do you know?
4. What diseases differentiate candidiasis?
5. Treatment of candidiasis.
6. Prevention of candidiasis.
7. The tactics of a dentist.
8. What is in the white plaque with oral candidiasis?

**Answers:**

1. Candidiasis - a disease caused by a yeast-like fungi of the genus *Candida*. Mushrooms of the genus *Candida* widely spread in nature, are saprophytes and are found in an inactive form in 50% of the population.
2. The disease is caused by yeast-like fungi of the genus *Candida*.
3. The disease is caused by yeast-like fungi of the genus *Candida*.  
Forms of candidiasis: 1. Mucosal candidiasis (thrush, candidiasis gums, tongue candidiasis, corners of the mouth) 2. Candidiasis of the skin 3. Visceral (systemic) candidiasis.
4. Differentiated from leukoplakia, CPL, white sponge nevus, the manifestations of allergic reactions in the oral cavity.
5. Treatment: 20% solution of sodium borate in glycerol, p-ry aniline dyes (methylene blue, purple gentsianovogo), antifungals 2-3% solution potassium iodide in 1 tbsp.spoon into 2-3 times a day, amphotericin B, kanesten, multivitamins (B, PP and C).
6. Prevention: proper oral care, long-term treatment with antibiotics and corticosteroids - the appointment of nystatin or levorin to 1500000Ed daily multivitamin alkaline irrigation.
7. Dental health, good prosthetics, oral hygiene, prolonged antibiotic therapy, alkaline rinse, oral administration of nystatin, a multivitamin.
8. White patches in the oral candidiasis consists of:  
desquamated epithelial cells, fibrin, food debris, bacteria, yeast, mycelial

**6.2. ANALYTICAL PART**

Situational problem number 1.

Go to the dentist asked mother of eight month old baby with complaints of poor appetite and uncharacteristic form of tongue, cheeks, palate, gums, tongue tvorozhesti defined white, with a smooth revealed a slightly swollen flushed surface.

- A. Make a prior diagnosis
  - a) Thrush \*
  - b) lichen planus
  - c) the leukoplakia
  - d) allergic stomatitis
  - e) tuberculous lupus
- B. Conduct a differential diagnosis:
  - a) leukoplakia

- b) lichen planus
- c) allergic stomatitis
- d) syphilitic papule
- e) All answers are correct \*

B. The diagnosis of thrush is set at the detection of:

- a) the unit cells of the fungus genus candida
- b) large clusters of cells with fungi of the genus candida by budding \*
- c) okoloni spirochetes Vensona
- d) a large number of pale treponem
- e) the presence of cells Ttsanka

#### Situational problem number 2

The patient complains of a 68 years old pain on opening the mouth, burning in the corners of his mouth. Objective: to observed erosion corners of the mouth covered with white bloom and easily removable brushes. Being closed lips erosion is visible. On the mucosa of lips marked maceration of the epithelium. Put the preliminary diagnosis. To confirm the diagnosis of what research should be undertaken.

1. Put the preliminary diagnosis

- a) candidiasis \*
- b) Allergic stomatitis
- c) lupus erythematosus
- d) leukoplakia
- e) CPL

2. To confirm the diagnosis of candidiasis is necessary to study

- a) microbiological \*
- b) the histamine test
- c) a sample of sublingual
- d) immunological
- e) The serological reactions

#### Situational problem number 3

Go to the dentist turned 30 years old patient complaining of a burning sensation in the mouth. In the history - was ill with pneumonia and received an injection of gentamicin. On examination, redness, white patches easy scraping.

1. Put the preliminary diagnosis

- a) candidiasis \*
- b) Allergic stomatitis
- c) lupus erythematosus
- d) leukoplakia
- e) CPL

2. To confirm the diagnosis of candidiasis is necessary to study

- a) microbiological \*
- b) the histamine test
- c) a sample of sublingual

- d) immunological
- e) The serological reactions

Situational problem № 4

A patient 45 years presumably atrophic candidiasis.

1. In smears for microbiological study found.
    - a) single cells of the fungus *Candida albicans* \*
    - b) gonococci
    - c) pale treponema
    - d) tubercle bacillus
    - e) stick Leffler
  
  2. Lechenie candidiasis includes everything except
    - a) The use of antibiotics \*
    - b) the impact on the pathogen
    - c) the elimination of pathogenic factors
    - d) treatment of opportunistic diseases
    - e) increasing the body's resistance
- Situational problem number 5

An objective examination of the patient 30 years in the oral cavity in hyperemic background observed large white spots coalescing into plaques. Zone of their localization with / on the necks, mouth corners, the back speakers. The general condition of the patient without visible changes:

1. Put a diagnosed
  - and. Leukoplakia
  - b. CPL
  - in. candidiasis \*
  - , the syphilis
2. The most common form of candidiasis:
  - and. laryngeal candidiasis
  - b. candidiasis of the oral
  - in. Thrush \*
  - g.kandidoz language
3. Extremely favorable for the development of candidiasis are:
  - and. gipoavitaminoz and anemia
  - b. disturbance of fat metabolism
  - in. disturbance of protein metabolism
  - was a violation of carbohydrate metabolism \*
4. Assign further treatment.

Tests:

1. Candidiasis is caused by:
  - A spirochete Vincent

- V. Koch's bacillus
- S. fungi
- D. streptococci

2. The most common form of candidiasis:
  - A. Thrush
  - B. Candidiasis of the oral
  - S. laryngeal candidiasis
  - D. candidiasis language
3. Thrush sign:
  - A syphilis
  - V. latent diabetes mellitus
  - S. gastrointestinal pathology
  - AD pathology of the liver
4. When candida glossitis tongue coating is:
  - A. In view of whitish scales
  - B. dirty gray
  - S. easily removable white
  - D. hardly out removable dirty gray
5. The diagnosis of candidiasis placed upon detection:
  - A single cell of the fungus Candida species
  - V. large clusters of cells of the fungus Candida species
  - St. Vincent's spirochete colonies
  - D. a large number of pale
6. When thrush after removing the white coating exposed surfaces:
  - A dense painless congestive
  - B. loosened pale
  - S. pathologically unaltered
  - D. Bright erosive bleeding
7. If you'll pick mycotic erosion are located:
  - A red border on the lips
  - B. at the corners of the mouth
  - S. on the oral mucosa
  - D. language
8. In the treatment of oral candidiasis is irrigated (remove excess):
  - A 2% sodium bicarbonate
  - B. 0.5% citric acid
  - C. 2% borate acid
  - D. sodium tetraborate 2-5%

### 6.3. The practical part

**Purpose:** To teach students medical treatment thrush Indications: Diagnosis of diseases OGAN.

**Equipment:** safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic:

Medical treatment of thrush.

1. Wearing rubber gloves, gauze mask., Goggles
2. Application anesthesia.
3. enzymatic treatment
4. Irrigation of the oral cavity with a weak solution of alkali
5. Applikitsii antifungal ointments.

**Execution of manual skill step by step:**

**Medical treatment of thrush.**

№	Following the steps.	Step is not performed	Step is not fully implemented.	Step is made in full
1.	Wearing rubber gloves, gauze mask., Goggles	0	10	20
2	Application anesthesia.	0	10	20
3.	Enzymatic treatment	0	10	20
4.	Irrigation of the oral cavity with a weak solution of alkali	0	10	20
5.	Applications of antifungal ointments	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. When shown the pathogenicity of fungi of the genus Candida.
2. Who might be candida?
3. What determines the clinical manifestations of candidiasis?
4. Who is most often thrush?
5. Localization of thrush in the mucosa.
6. What are the characteristics candidiasis?
7. Who gets mycotic bridou?
8. Differential diagnosis of mycotic'll pick.

## LESSON № 14

**THEME: «Allergic diseases..Anaphylactic shock.Etiology. Pathogenesis.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

- A definition of allergy, to identify the etiological factors, to know the clinical manifestations, to emergency care;
- Master the methods of diagnosis, treatment and prevention of medication of lesions of the oral mucosa.

#### **Tasks:**

##### ***The student should know:***

- The characteristic clinical signs of immediate allergic reactions and delayed-type;
- Drugs that can cause allergic reactions and drug defeat of the oral mucosa.

##### ***The student should be able to:***

- Stages of emergency care for allergic reactions;
- Stages of medical treatment with medical injury of the oral mucosa;

### 4. MOTIVATION

Knowledge of drugs and drug-allergic lesion of the oral mucosa are important factors in identifying allergic reactions and medication lesions of the oral mucosa, be aware of prevention measures, measures for emergency assistance, and to prevent their occurrence. The resulting amount of

theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, prosthodontics, internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases, pathology, anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

1. Allergy is pathologically increased, and consequently perverted reaction to certain antigenic substances of nature, which in normal individuals do not cause ill effects.

2. Distinguished: 1. Ekzoallergy (household, food, pollen, drugs, chemicals); 2. Endoallergy (primary or natural: the lens, thyroglobulin, secondary or produced in the body in violation of metabolism).

3. Allergic reactions are: 1. immediate 2. delayed, 3. mixed types.

4. In the pathogenesis of allergic reactions distinguish the following stages:  
- Immune - pathochemical - pathophysiological.

5. Vesico-erosive stomatitis differentiate from pemphigus, herpetic stomatitis, MEE.

6. Treatment of necrotizing stomatitis: an end to the drug, antisense drugs (30% sodium thiosulfate, calcium chloride), antihistamines (suprastin, tavegil), corticosteroids (prednisone at 40-60 mg per day), drinking plenty of fluids, drip gemodeza, poliglyukina, isotonic NaCl.

Locally: antiseptics, anesthesia, removal of necrotic masses necrotic application means.

7. Emergency care in anaphylactic shock:

- The patient lay. warm;
- To stop the flow of blood to the allergen;
- A / m 0.5 - 0.1% solution of epinephrine and s / c 0.5 - 0.1% p-p kordiamina;
- 10.0 - 2.4% solution of aminophylline from 10.0 - 40% solution in / jet,
- Gtdrokortizon in one milliliter of p-p 1% dimedrola / m;
- 10% solution of calcium chloride / in.

8. Prevention:

- Careful history;
- Compliance with the rules of injection technique;

- Statement of the allergy tests;
- Obligatory presence funds.

Bacterial allergy, hypersensitivity to the bacteria and their toxins. There may be pockets of infection in the tonsils, sinuses, teeth, periodontium, the internal organs.

Angioedema is localized mostly on the face, eyelids, lips, tongue, cheeks, throat.

Increase in the number of allergic reactions contribute to the pollution of the environment, the widespread use of chemicals, abuse drugs, widely used for medicinal purposes of protein drugs, the changing nature of power.

Catarrhal-hemorrhagic stomatitis:

- Occur after administration of different drugs;
- Sometimes combined with damage to other organs and tissues;
- Burning and itching of the oral mucosa;
- Dry mouth;
- Pain when eating, especially acute;
- Swelling of the oral mucosa, teeth imprints on the tongue and cheeks;
- Areas of congestion;
- Deep desquamation filiform papillae, "painted tongue";
- Petechial hemorrhages or hemorrhages.

The average form of anaphylactic shock is characterized by weakness, dizziness, darkening of the eyes, anxiety, sudden paleness of the skin, shortness of breath at rest, rapid pulse, nausea, vomiting, and the weakening of pulmonary respiration, the appearance of seizures.

Angioedema is characterized by deep swelling tissue swelling formation of elastic consistency, tension fabric, the absence of pits on pressure, pruritus, and sometimes fever and chills.

Angioedema differentiate from makroheylita syndrome Melkersona-Rosenthal, erysipelas, and various types of macroglossia.

The important role of allergic reactions is given of the nervous and endocrine systems and gastrointestinal pathology.

**Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
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10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Application Control and questions for review:**

1. What are Allergies?
2. What allergens do you know?
3. List the types of allergic reactions.
4. List the stages of allergic reactions of immediate type.
5. Differential diagnosis of vesico - erosive stomatitis.
6. Treatment of necrotizing stomatitis.
7. First aid for anaphylactic shock.
8. Prophylaxis.

#### **Answers:**

Allergy is a pathologically increased, and consequently perverted reaction to certain antigenic substances of nature, which in normal individuals do not cause ill effects.

There are two: 1. Ekzoallergeny (household, food, pollen, drugs, chemicals);

2. Endoallergeny (primary or natural: the lens, thyroglobulin, secondary or produced in the body in violation of metabolism).

3 Allergic reactions are: 1. immediate 2. delayed, 3. mixed types.

4 The pathogenesis of allergic reactions distinguish the following stages:

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Locally: antiseptics, anesthesia, removal of necrotic masses necrotic application means.

7. Emergency care in anaphylactic shock:

- The patient lay. warm;
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- 10.0 - 2.4% solution of aminophylline from 10.0 - 40% solution in / jet,
- Gtdrokortizon or prednisolone in one milliliter of p-p 1% dimedrola / m;
- 10% solution of calcium chloride / in.

8. Prevention:

- Careful history;
- Compliance with the rules of injection technique;
- Statement of the allergy tests;
- Obligatory presence funds.

## 6.2. ANALYTICAL PART

Situational problem number 1.

The patient after injection of vitamin B, on the upper lip marked swelling of elastic consistency. Tissue swelling in the area is tense, pressure-sensitive pits are formed. Put diagnosis. Give the first aid.

A: Angioedema. Immediately terminate the allergen and type antihistamines.

Situational problem number 2

After the introduction of procaine 2% -4.0 ml in 3-4 min in a patient there: easy fatigue, dizziness, ringing in the ears, darkening of the eyes, a cold sweat. Place a diagnosis. Provide first aid.

Answer: The Drug allergies. Immediately terminate the allergen and type antihistamines

Situational problem number 3

The patient, after receiving on the upper lip and the eyelids marked swelling. The patient complains of tissue tension, itching, chills.

A. Put a diagnosed

- a) angioedema \*
- b) Melkersona syndrome - Rosenthal
- c) The erysipelas
- d) macroglossia
- e) exfoliativecheilitis

- B. Conduct a differential diagnosis:
- a) Melkersson syndrome - Rosenthal
  - b) erysipelas
  - c) erythema multiforme exudative
  - d) macroglossia
  - e) All answers are correct \*
- B. First aid for angioedema is:
- a) termination of access to the allergen
  - b) the appointment of decongestants
  - c) the appointment of an antihistamine
  - d) carrying out detoxication therapy
  - e) All answers are correct \*

#### Situational problem № 4

Patient 60 years old, complained of: the feeling of itching, burning, dryness of mucous membranes of the mouth, taste perversion up to their complete loss. Anamnesis: Two weeks ago, was made part of denture acrylic resin, and then there were complaints.

**OBJECTIVE:** edema mucosal erythema, hemorrhagic phenomena observed, spot erosion on the site of contact with the prosthesis.

1. Put a diagnosed

Answer: contact allergic stomatitis

2. Your tactics of treatment:

A: Making a new prosthesis made of other material, the purpose of desensitizing agents, locally antiseptic processing, application.

#### **Tests:**

1. Allergic reactions of immediate type developed in the course of:
  - A. 5-6 seconds
  - B. 2-20 min
  - C. Up to 60 minutes
  - D. in 24 hours
  - E. within 5-6 hours
  
2. Contact allergic changes in the mucous membranes of the mouth are:
  - A. Allergic reactions of immediate type
  - V. delayed hypersensitivity
  - S. poisoning toxins
  - DA sensitization to viruses
  - E. sensitization to microorganisms

3. Allergen in plastinochnom prosthesis can be:
  - A sharp edges of the prosthesis
  - V. rough
  - C. Artificial teeth
  - D. methacrylate
  - E. faulty design
  
4. Allergic reactions do not develop delayed-type before:
  - A 10-15 sec
  - B. 2-20 min
  - C. 5-6 hours
  - D. 12:00
  - E. 24 hours
  
5. If an allergic reaction of delayed type in the blood was:
  - A. eosinophilia
  - B. leukopenia
  - S. Thrombocytopenia
  - D. an increase in erythrocyte
  - E. leukocytosis
  
6. Tactics of treatment of contact allergy:
  - A vitamin
  - Physiotherapy
  - S. desensitizing therapy
  - D. Antibiotic
  - E. Treatment with corticosteroids
  
7. Antigen - antibody developed in:
  - A. pathochemical
  - V. Immunological
  - S. pathophysiological
  - D. physiological stage
  
8. By ekzoallergenam include:
  - A lens
  - B. treoglobulin
  - C. A and B
  - J. Antibiotics

### **6.3. The practical part**

#### **Manual skill**

#### **Conducting allergological tests.**

Objective: allergological tests in patients.

Indications: Conduct tests on lekastvennyye allergic drugs.

Equipment: Dental chair, drill, dentist's standard set, alcohol, drugslekastvennyye, cotton wool, syringes.

Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Set a patient in the chair.	0		10
2.	Medical history.	0		10
3.	Determine anesthetic drug.	0		10
4.	Forearm handle alcohol.	0		6
5.	Subcutaneous enter 0.2-0.3 ml of the drug.	0		14
6.	Wait for 5 minutes.			6
7.	Determine the papules.			14
8.	Evaluate the size and color of the papules.			20
9.	Make the conclusion			10
	Total:	0		100

### 10. Study Questions

1. The concept of microbial allergy.
2. Where the most localized angioedema?
3. What contributes to decreasing the number of allergic reactions.
4. The clinic catarrhal-hemorrhagic stomatitis.
5. What characterizes the average shape of anaphylactic shock?
6. Angioedema is characterized.
7. Differential diagnosis of angioedema.
8. State which systems play an important role in allergic reactions.

## LESSON № 15

**THEME: «Erythema multiforme exudative. Clinics.Diagnostics.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

- To master the diagnosis, differential diagnosis and treatment of exudative erythema multiforme.

#### **Tasks:**

#### ***The student should know:***

- factors precipitating the beginning of exudative erythema multiforme;
- Additional methods of examination exudative erythema multiforme.

#### ***The student should be able to:***

- anesthetics, antiviral, and corticosteroid drugs keratoplasticheskie;
- The right treatment plan;
- To conduct pharmacological treatment.

### 4. MOTIVATION

Knowledge of the morphological elements found in erythema multiforme is important in the diagnosis and differential diagnosis of exudative erythema multiforme from other disorders with similar clinical and morphological elements and the treatment plan. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathology, STI diseases, pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Etiology of exudative erythema multiforme:

1) Virus, characterized by seasonality, in the form of outbreaks of the epidemic, the acute onset of disease.

2) Infectious-allergic, allergy medication chemical and other origin.

3) establish a close relationship with rheumatism.

Factors are hypothermia, drug ingestion, trauma of the oral mucosa.

1. Classification of exudative erythema multiforme:

Forms: a) infectious-allergic (true or idiopathic) 1. Light, 2. average, 3. hard

B) toxic-allergic drugs in case of intolerance (symptomatic)

B) Stevens-Johnson syndrome.

3. Clinic exudative erythema multiforme: Elements of heel lesions, papules, blisters, blisters on the mucous membrane disease begins to manifest tenderness, further developing the phenomenon of acute inflammation of the type of "stomatitis" Against the background of redness appear bubbles which quickly burst of CO and red border of lips. By the hemorrhagic type of inflammation resolution and drying blisters on the lips red border visible brown, bloody crusts. All of this mucosal violation of the general condition.

4. With Stevens-Johnson syndrome (severe mucocutaneous - eye syndrome) - hardly flowing form exudative erythema multiforme. Zabolovanie begins abruptly with fever and joint pains. Affected large areas of skin, oral mucosa, eyes, nose, and internal organs. There is death.

5. Laboratory study:

a) blood test - elevated WBC, ESR acceleration, reduction of globulins;

b) cytology - on drugs - large number of neutrophils.

a) skin-test-allergic reaction to potential causal allergen;

d) histologically - predelimitation of subepithelial location of the bubbles, swelling (symptom Nikolsky negative)

6. Local treatment of exudative erythema multiforme:

1. Application anesthesia.
2. Antiseptic treatment:
  - P-ry of potassium permanganate (1:5000), 0.06% hlorgegsidina
  - P-ry enzymes (trypsin, lizotsin, kukumazin)
3. Anti-inflammatory therapy:
  - MAZ of antibiotics - metillursirelovaya
  - Antivirals: oksoliyovaya 0.25%, 0.5% bonaftoyvaya
  - Corticosteroid MAZ, flutsinar.
4. Keratoplasty: karatolin, Unna paste, Solcoseryl.
5. Dental health
7. Differentiate exudative erythema multiforme from the vulgar and pemphigus, herpetic stomatitis, secondary syphilis, a form of red flat disturbing.
8. Prevention is carried out in mezhretsedivny period. In the presence of microbial sensitization spend specific therapy with allergens to which the sensitivity is set introduction gistoglobulina (1-2 ml 2-3 times a week, the rate of 10.8 injections) and measles antistafilokkovogo gamma globulin (7.5 on a course of injections) imotransfuzii , levamisole. Mandatory rehabilitation centers focal infection (tonzinitis, adenoids, chronic otitis, periodontitis).

Elements of lesions in erythema multiforme: patches, papules, blisters, blisters, erosions, crusts.

Dominant figure on the skin, bluish rosette - pink spots with a diameter of 1-2 cm with a bluish-brown center, which bubble or peel.

Localisation in the skin red border of lips, the corners of the mouth, face, extensor surfaces of extremities, palms, soles, legs, genitals.

Duration of exudative erythema multiforme 7-14 days, in severe cases up to one month or more.

Weather favorable but there may be relapses. For infectious - allergic forms peculiar to the seasonality of relapses. Toxic-allergic form of exudative erythema multiforme relapses in case of contact with the patient's etiologic agent (a drug-allergen)

General treatment exudative erythema multiforme:

-Drink plenty of water, gentle calorie diet vitaminized.

The anti-desensitization and money.

-Antibiotics and sulfonamides.

-Antivirals.

-Vitamin: Group B, C, PP.

-Corticosteroids.

Staphylococcal Toxoid, and bacterial allergens to which the sensitivity is increased.

### **The methodology of the business game "Brainstorm"**

#### **The method of "brainstorming"**

The main provisions of the technique:

-No reservations and criticisms, which prevent the formation of thoughts and ideas;

- Greeting soaring thought, considering that the more unusual ideas, the better;
  - To a small number of proposals;
  - A combination of ideas and their development;
  - Brief statement without arguments deployed;
  - The division of those who generate ideas and those of their processes;
- This technique is taught to argue and defend their own point of view, to find optimal solutions in any situation, to build communication, to convince opponents of loyalty defended positions.

### **Test Questions:**

1. The etiology and pathogenesis of exudative erythema multiforme.
2. Classification of exudative erythema multiforme.
3. Clinical manifestations of exudative erythema multiforme.
4. Clinic Stevens-Johnson syndrome.
5. Laboratory studies with exudative erythema multiforme.
6. Local treatment of exudative erythema multiforme.
7. Differential diagnosis of exudative erythema multiforme.
8. Prophylaxis.

### **Answers:**

1.) Etiology of exudative erythema multiforme: 1) Virus, seasonality, in the form of outbreaks of the epidemic, the acute onset of disease.

2) Infectious-allergic, allergy medication chemical and other origin.

3) establish a close relationship with rheumatism.

Factors are hypothermia, drug ingestion, trauma of the oral mucosa.

1 Classification of exudative erythema multiforme:

Forms: a) infectious-allergic (true or idiopathic) 1. Light, 2. On the anterior, 3. hard

B) toxic-allergic drugs in case of intolerance (symptomatic)

B) Stevens-Johnson syndrome.

3. Clinic exudative erythema multiforme: Elements of heel lesions, papules, blisters, blisters on the mucous membrane disease begins to manifest tenderness, further developing the phenomenon of acute inflammation of the type of "stomatitis" Against the background of redness appear bubbles which quickly burst of CO and red border of lips. By the hemorrhagic type of inflammation resolution and drying blisters on the lips red border visible brown, bloody crusts. All of this mucosal violation of the general condition.

4. With Stevens-Johnson syndrome (severe muco - cutaneous - eye syndrome) - flowing form exudative erythema multiforme. The ache begins abruptly with fever and joint pains. Affected large areas of skin, oral mucosa, eyes, nose, and internal organs. There is death.

5. Laboratory study:

- a) blood test - elevated WBC, ESR acceleration, reduction of globulins;
- b) cytology - on drugs - large number of neutrophils.
- a) skin-test-allergic reaction to polozhitelnaya causal allergen;
- d) histologically - opredelmsyasubepithelial location of the bubbles, swelling (symptom Nikolsky negative)

6. Local treatment of exudative erythema multiform:

1. Application anesthesia.
2. Antiseptic treatment:
  - P-ry of potassium permanganate (1:5000), 0.06% hlorgegsidina
  - P-ry enzymes (trypsin, lizotsin, kukumazin)
3. Anti-inflammatory therapy:
  - MAZ of antibiotics -
  - Antivirals: oksoliyovaya 0.25%, 0.5%
  - Corticosteroid MAZ,
4. Keratoplasty: karatolin, Unna paste, Solcoseryl.
5. Dental health
7. Differentiate exudative erythema multiforme from the vulgar and pemphigus, herpetic stomatitis, secondary syphilis, bullous form of red flat disturbing.
8. Prevention is carried out in mezhretsedivny period. In the presence of microbial sensitization is carried out specific hyposensitization therapy with allergens to which the sensitivity is set povyshennal introduction gistoglobulina (1-2 ml 2-3 times a week, the rate of 10.8 injections) and measles gamma globulin (7.5 on a course of injections) levamisole. Mandatory rehabilitation centers focal infection (tonzimity, adenoids, chronic otitis, periodontitis).

## 6.2. ANALYTICAL PART

Situational problem number 1.

The patient complains of 22 years general weakness, headache, high body temperature within 2 - days, muscle pain, tenderness and swelling of the tongue and lips.

On examination: red border of lips and oral mucosa swelling, hyperemic. There are multiple erosions on the red border of the lips, covered with crusts, erosion on the tongue, lip mucosa sharply painful. On the skin there is no change.

The lab of studies: blood count, leukocytosis, increased erythrocyte sedimentation rate, the smears, a large number of neutrophils.

Postavte diagnosis.

Make a plan of treatment.

Answer: exudative erythema multiforme. The plan of treatment: total:

- Drink plenty of water, gentle calorie diet vitaminized.

The anti-desensitization and money.

- Antibiotics and sulfonamides.

- Antivirals.

- Vitamin: Group B, C, PP.

- Corticosteroids.

Staphylococcal Toxoid, and bacterial allergens to which the sensitivity is increased. Local:

1. Application anesthesia.
2. Antiseptic treatment:
  - P-ry of potassium permanganate (1:5000), 0.06% hlorgegsidina
  - P-ry enzymes (trypsin, lizotsin, kukumazin)
3. Anti-inflammatory therapy:
  - MAZ of antibiotics
  - Antivirals 0.25%, 0.5%
  - Corticosteroid MAZ,
4. Keratoplasty: karatolin, Unna paste, Solcoseryl.
5. Dental health

#### Situational problem number 2

Patient 37 years complained of fever up to 38 of headache, pain in joints and muscles, the appearance of blisters in the mouth, mainly in the anterior regions. Burst the bubbles become large wound surfaces. Eating sharply painful. For several years the disease due to repeated wet and windy weather. Objectively difficulty opening the mouth, a significant swelling of the lips, buccal mucosa, tongue. Extensive erosion covered with gray bloom. On the red border of the lips and corners of the mouth blood crusts. The hands, shins, drawing "badge"

Postavte diagnosis. Make a plan of treatment.

A.: Exudative erythema multiform. The treatment plan includes the general and local treatment.

#### Situational problem number 3

The patient had 25 years of headache, fever do380 C, pain in joints and in the mouth. In the mouth and lips are eroded, bloody crusts, the skin of hands - "cockade"

1. Put a diagnosed
  - @ Exudative erythema multiforme \*
  - @ Planus
  - @ Pemphigus
  - @ Leukoplakia
  - @ Zoster.
2. What elements are characteristic lesions exudative erythema multiforme:
  - A) erosion, bloody crusts \*
  - B) The badge on the skin \*
  - B) vesicle
  - D) a chancre
  - D) with ulcer sapped edges, the bottom of a dense, with dirty gray content

#### Situational problem № 4

The patient complains of frequent colds, headaches, fever. In the mouth, lips polymorphism elements of destruction. On the skin - "badge." Place a diagnosis

- @ Exudative erythema multiform \*
- @ Planus
- @ Pemphigus
- @ Leukoplakia
- @ Zoster

#### Situational problem number 5

The patient is 20 years with sore throat received sulfadimetoksin, then in the mouth and lips appeared ulcers, crusting, and skin rash in the form of a "rosette" Put a diagnosis:

- @ Exudative erythema multiform \*
- @ Syphilis
- @ Pemphigus
- @ Leukoplakia
- @ Candidiasis

#### Situational problem number 6

The patient is 20 years old diagnosed with erythema multiform toxic - allergic form. Perform general treatment:

- \* @ Antihistamine
- \* @ Desensitizing
- @ Anti-
- @ Stimulatory
- @ Antipyretic

#### Situational problem number 7

The patient is 27 years old diagnosed with erythema multiform infectious - allergic form. Perform general treatment:

- \* @ Anti-
- \* @ Vitamin
- @ Antihistamine
- @ Antimalarial
- @ Sedative

#### Situational problem number 8

The patient is 20 years old diagnosed with erythema multiform toxic - allergic form. Spend the topical treatment of:

- @ Application anesthesia \*
- @ Antiseptic \*
- @ Applique corticosteroid ointments \*
- @ Applique ointment

#### Situational problem number 9

The patient is 27 years old diagnosed with erythema multiforme infectious - allergic form. Spend the topical treatment of:

- @ Application anesthesia \*
- @ Antiseptic \*
- @ Applique linkomitsinovoy ointment, ointment then solkoserila \*
- @ Applique ointment

Situational problem number 10

The patient is 25 years old diagnosed with erythema multiform infectious - allergic form. What factors contributed to the development of this disease:

- \* @ Streptococci
- \* @ Staphylococcus
- @ Antibiotics
- @ Salicylates
- @ Sedatives

### Tests:

1. Infectious syndromes - nature of the organism can be achieved by:
  - A. administration of sodium thiosulfate 30% \*
  - B. Injection Vitamin "B"
  - V. injection of antibiotics
  - G. topical application of glucocorticoid cream
  - D. antiseptic treatment of the mucosa.
  
2. The symptom of "badge" at:
  - A. exudative erythema multiform \*
  - B. leukoplakia
  - V. Pemphigus
  - G. CPL
  - D. HRAS
  
3. The most effective anti-inflammatory, action have:
  - A. Corticosteroids \*
  - B. Antiviral
  - B. Antibiotics
  - G. sulfanilamide
  - D. Vitamins.
  
4. Toxic-allergic form of exudative erythema multiform can determine the breakdown:
  - A histamine
  - B. degranulation test basophil Shelley \*
  - B. Blistering
  - Mr. Perks

D. test \*

5. Exudative erythema multiform with the eye - it's Syndrome:

A. Stevens - Johnson \*

B. Behcet

B. Sjogren

Mr. Cushing's Itsengo

D. Melkersona - Rosenthal.

6. Morphological element in exudative erythema multiform:

A. erythema, papule, vesicle

B. aphtha, scale, scar

B. aphtha, ulcer, scar

G. blister, bubble, spot \*

D. tubercle, ulcer, scar

7. In the course of exudative erythema multiform only in the oral mucosa differentiation. diagnosis is not carried out:

A. leukoplakia \*

B. pemphigus

B. pemphigoid

G. herpetic stomatitis

D. syphilitic papule

8. Seasonality characteristic:

A. exudative erythema multiforme \*

B. HRAS

B. CPL

G. Foot and Mouth Disease

D. zoster

### **6.3. The practical part**

**Purpose:** To teach students the elements of medical treatment of lesions in erythema multiform

**Indications:** Diagnosis of diseases of the oral mucosa.

**Equipment:** safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

#### **List of manual skills on the topic:**

**Medical treatment of lesions in the elements of exudative erythema multiform.**

1. Wearing rubber gloves and gauze masks.

2. Analgesia.

3. Antiseptic treatment (3% H<sub>2</sub>O<sub>2</sub>, 0.06% chlorhexidine).

4. Anti-inflammatory therapy (ointments of antibiotic, antiviral and corticosteroid ointments).

5. Application keratoplasticheskikh funds.

**Execution of manual skill step by step:**

**Medical treatment of lesions in the elements of exudative erythema multiform.**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing rubber gloves and gauze masks.	0	10	20
2	Analgesia.	0	10	20
3.	Antiseptic treatment (3% H <sub>2</sub> O <sub>2</sub> , 0.06% chlorhexidine).	0	10	20
4.	Anti-inflammatory therapy (ointments of antibiotic, antiviral and corticosteroid ointments).	0	10	20
5.	Application of keratoplasticheskikh	0	10	20
	Total:	0		100

**10. Study Questions**

1. List the elements of the lesions in exudative erythema multiforme.
2. A definition of "rosette"
3. In what areas of the skin most often localized.
4. Duration of exudative erythema multiforme.
5. Forecast of exudative erythema multiforme.
6. General treatment exudative erythema multiforme.

## LESSON № 16

### **THEME: «Chronically recurrent aphthous stomatitis. Clinics.Diagnostics.Therapy.».**

#### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

#### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

#### 3. SESSION PURPOSE

To study changes in the oral mucosa with Chronic recurrent aphthous stomatitis, clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

##### ***The student should know:***

- Clinical features of chronic recurrent aphthous stomatitis
- Histological changes of the oral mucosa with Chronic recurrent aphthous stomatitis
- Treatment of Chronic recurrent aphthous stomatitis

##### ***The student should be able to:***

- Characterized by an element of defeat Chronic recurrent aphthous stomatitis
- Identify the histological changes of the oral mucosa
- Identify and differentiate between the clinical forms of chronic recurrent aphthous stomatitis
- Provide a differential diagnosis of chronic recurrent aphthous stomatitis

## 4. MOTIVATION

Knowledge of different methods of Chronic recurrent aphthous stomatitis is important in the prevention and treatment of chronic recurrent aphthous stomatitis. Necessary to safely carry out all stages of treatment Chronic recurrent aphthous stomatitis, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Chronic recurrent aphthous stomatitis most often develops in patients suffering from gastro - intestinal diseases and severe sensitization to microbial allergens to the damage of cellular immunity. In most patients, this stomatitis is characterized by the appearance of single (1-3) AFL round or oval in shape with a diameter of 2 to 8 mm, covered with fibrous or necrotic plaque. Aphthae are painful, difficult ingestion, are localized mainly in the mucosa of the lips, cheeks, sides of the tongue. There are no more than 10-14 days. Differentiate from traumatic erosions, secondary syphilis, herpes.

Treatment. Targeted treatment for patients with chronic cancer sores is necessary to:

- 1) examination of the gastro - intestinal tract to identify inflammatory processes, dysbiosis,
- 2) investigation of the functional state of the liver;
- 3) detection of foci of chronic inflammation, including;
- 4) allergic tests (intradermal tests with microbial allergens, the reaction is leukocytosis with microbial allergens);
- 5) survey.

Treatment is directed primarily at the elimination of associated diseases, sanitation

foci of chronic infection of the mouth. If you  $\neg$  phenomenon of increased sensitivity to microbial allergens designate a specific course  
Non-specific hyposensitization is injected subcutaneously glistaglobulina (1 ml in 3 days, only 8-10 injection), intravenous 30% sodium thiosulfate (10 ml a day, total 10 injections).

During the testimony of (reduced body resistance, impaired cellular immunity  $\neg$  accurate) designate and sodium tablets, intramuscular injection of an individual scheme (in a steady), lysozyme, intramuscular injection of 75 mg 2 times a day, autohemotherapy, hyperbaric oxygenation, vitamin .

Local treated with analgesia (baths, basins), removal of necrotic plaque, the effect on the ulcer or means. Necrotic plaque can Dashed by proteolytic enzymes (himopsin, chymotrypsin). The good effect providing exposure AFL or ulceration of helium-neon laser, the local ultraviolet irradiation using a tube or OH-7 OKUF-5M. During the rash should be excluded AFL chit smoking, sour and salty foods and alcohol.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for

which the maximum score is placed.

11. Discussion is given on 15 minutes.

12. Students receive points for the answers from the theoretical part of the rating classes.

13. The resulting score of students in failing to take into account the estimates for the current session.

14. Work remains resident teachers

15. The analysis of responses.

Variants of questions:

1. Characteristics of Chronic recurrent aphthous stomatitis?

Chronic recurrent aphthous stomatitis, chronic inflammatory disease of the oral mucosa, characterized by the emergence of the AFL and flowing with periodic exacerbations and remissions.

2. What is the AFTA?

AFTA - limited area of necrosis of the epithelium yellow – gray round or oval, measuring 0.2 - 0.5 cm or more. Surrounded by bright - red inflammatory rim. Heals without scarring.

3. What forms of Chronic recurrent aphthous stomatitis distinction?

There are several forms-fibrinous, necrotic, glandular, scar anddeform

4. Than non-specific sensitization is carried out?

Non-specific hyposensitization is injected subcutaneously gista globulina (1 ml in 3 days, only 8-10 injection), intravenous 30% sodium thiosulfate (10 ml a day, total 10 injections).

## **6.2. ANALYTICAL PART**

Situational problem number 1.

A patient 26 years against the background of the gastrointestinal tract pathology in the mouth periodically rounded, sharply painful erosion. Put the preliminary diagnosis

- a) Chronic recurrent aphthous stomatitis \*
- b) CPL
- c) pemphigus
- g) MEE
- d) tuberculosis

Situational problem number 2

The patient has a severe form of chronic recurrent aphthous stomatitis. Erosion in the oral cavity are called:

- a) \* Sutton aphthae
- b) disease Lyle

- a) Rosenthal Syndrome
- g) Sjogren's syndrome
- e) Stevens-Johnson syndrome

#### Situational problem number 3

Patients with chronic recurrent aphthous stomatitis against gastrointestinal suffering for 7 years in terms of overall treatment can be recommended:

- a) Antihistamines \*
- b) multivitamins
- c) means increasing the resistance of the organism
- g) sulfonamides
- e) hormone preparations
- e) The cytotoxic
- g) The hemostatic

#### Situational problem № 4

A patient 17 years Chronic recurrent aphthous stomatitis. On the mucosa of the fold transition in 34 and 35 teeth on the lateral surface of the tongue sharply painful, complicate eating, swallowing, speech aphthae. For anesthesia is recommended to use the AFL:

- a) lidocaine spray \*
- b) the suspension in oil anestezina \*
- c) ointment
- g) gistolobulin
- e) oxalic ointment

#### Situational problem number 5

The patient in the lateral surface of the tongue states AFTA is a painful, soft to the touch, fibrinous plaque covered with hyperemic rim. Put a preliminary diagnosis:

- a) Chronic recurrent aphthous stomatitis \*
- b) CPL
- c) MEE
- g) pemphigus
- d) leukoplakia

#### Situational problem number 6

In patients with chronic recurrent aphthous stomatitis long-term healing aphtha in the mouth. Which means for epithelialization of the AFL would you recommend:

- a) Solcoseryl dental adhesive paste \*
- b) rosehip oil
- c) ointment
- d) oxalic ointment

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of Chronic recurrent aphthous stomatitis

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment of Chronic recurrent aphthous stomatitis

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. The imposition of anti-inflammatory creams and keratoplasty

### Manual skill

#### Local treatment of Chronic recurrent aphthous stomatitis:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze masks	0	10	20
2.	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment.	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	The imposition of anti-inflammatory creams and keratoplasty	0	10	20
	Total:	0		100

### 10. Study Questions

1. Which group of diseases include chronic recurrent aphthous stomatitis?
2. Etiology of Chronic recurrent aphthous stomatitis?
3. Clinic Chronic recurrent aphthous stomatitis?
4. Differential diagnosis of chronic recurrent aphthous stomatitis?
5. Treatment of Chronic recurrent aphthous stomatitis?
6. Prevention of chronic recurrent aphthous stomatitis?

## LESSON № 17

**THEME: «Changes of oral mucous membrane in exogenous intoxications. Changes of oral mucous membrane in different occupational hazards.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa with exogenous intoxication, changes in the oral mucosa at different occupational exposures, clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

***The student should know:***

- Clinical features at heterointoxication?
- Changes in the oral mucosa at different occupational hazard?
  - Treatment

***The student should be able to:***

- To characterize the clinical features in exogenous intoxications?
- Changes in the oral mucosa at different occupational exposures
- Identify and differentiate between the clinical forms
- Provide a differential diagnosis

### 4. MOTIVATION

Knowledge of various methods of exogenous intoxication is important in the prevention and treatment. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

On the oral mucosa may have a negative impact of some conditions of production. In some cases, it reacts to specific clinical manifestations, in others these changes are nonspecific.

The workers employed in the manufacture of organic, inorganic acids and alkalis, can develop focal or diffuse chronic catarrh of the mucous membranes of the mouth. In the course of focal inflammation is localized more on the gums in the front teeth, as well as upper and lower lips.

Catarrhal gingivitis during prolonged contact with these substances mucosal atrophy gingival papillae. Deposited at an elevated production facilities, such as mining companies and others, there is a tendency to increased mucosal keratinization lips, cheeks and gums.

The frequency of leukoplakia is high at chemists, as well as for persons engaged in the production of aluminum, synthetic leather and in a high magnetic field is high. Lots of hyperkeratosis more prevalent in the anterior of the mouth, hit the corners of the mouth, the mucous membrane of the lips, tongue.

When intoxication metals such as mercury, lead, bismuth, aluminum, zinc, antimony, etc., in the mouth catarrhal or ulcerative stomatitis. Some metals cause relatively specific clinical picture.

Lead stomatitis. Exhibits metallic taste and odor from the mouth. Around the necks of the front teeth to the gingival margin, mainly from the vestibular surface of the rim there is a lead. Against the background of general anemia of the mucous membrane will develop chronic catarrhal gingivitis. Deposition of lead in the form of separate black and blue spots can appear simultaneously on the gums, cheeks, tongue, lips, palate. In severe cases of ulcerative stomatitis may develop. At the same time marked weakness, apathy, impaired digestion.

Bismuth stomatitis. develops mainly in people who use bismuth preparations for therapeutic purposes. Mild intoxication mucosal catarrh. In severe cases, developing ulcerative gingivostomatitis with hypersalivation and fetid breath. The process sometimes quickly deep into the tissue, with marked destruction of bone necrosis limited dental alveoli.

Mercurial stomatitis. characterizes chronic. The disease begins with a catarrhal gum interdental gingival papillae then covered with white bloom gradually become necrotic, emitting a foul smell. The process may spread to the mucous cheeks, tongue and tonsil. Heightening marked regional lymph nodes and

hypersalivation. As a result of swelling of the cheeks and sides of the tongue there are prints of the teeth. The patient complains of a metallic taste in the mouth, throbbing pain in the gums, headache and malaise.

**Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

**USE OF "ROUND TABLE".  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

**Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

**Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, FI students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

**Options for question and answer:**

1. Those who frequent leukoplakia?

The frequency of leukoplakia is high at chemists, as well as for persons engaged in the production of aluminum, synthetic leather and working in a high magnetic field.

2. Lead stomatitis?

Exhibits metallic taste and odor from the mouth. Around the necks of the front teeth to the gingival margin, mainly from the vestibular surface of the rim there is a lead. Against the background of general anemia of the mucous membrane will develop chronic catarrhal gingivitis. Deposition of lead in the form of separate black and blue spots can appear simultaneously on the gums, cheeks, tongue, lips, palate. In severe cases of ulcerative stomatitis may develop. At the same time marked weakness, apathy, impaired digestion.

### 3. Hyperkeratosis?

Hyperkeratosis - is excessive cornification at the expense of the phenomena desquamation or enhanced production of keratinized cells.

### 4. Clinic Mercury stomatitis.

Characterizes chronic. The disease begins with a catarrhal gum interdental gingival papillae then covered with a grayish-white bloom, gradually become necrotic, emitting a foul smell. The process can be extended to the mucous membrane of cheeks, tongue and tonsil. Heightening marked regional lymph nodes and hypersalivation. As a result of swelling of the cheeks and sides of the tongue there are prints of the teeth. The patient complains of a metallic taste in the mouth, throbbing pain in the gums, headache and malaise.

## 6.2. ANALYTICAL PART

### Case problem: 1

Patient A., 49 years working for the mining company, complains of dry mouth, metallic taste, frequent headaches, and dizziness. Abundant above and subgingival dental plaque, soft plaque, on the edge of the marginal gingiva is a gray border. There is hyperemia of gingival papillae and the gingival margin.

1. Put the preliminary diagnosis
2. your treatment strategy.

Answer: Lead stomatitis.

Remediation of the oral cavity. Removal of dental plaque. The use of proteolytic enzymes, drugs. Irrigation of oral 1% acetic acid. Vitamin therapy.

### Case problem: 2

Patient 47, an employee complains of mercury production. on a metallic taste in the mouth, irritability, memory loss and health. OBJECTIVE: marked catarrhal gums covered a characteristic black border. In some places. Necrotized, emitting a foul smell ..Heightening marked regional lymph nodes and hypersalivation.

1. Put the preliminary diagnosis
2. Your treatment strategy.

A: Mercury stomatitis.

Remediation of the oral cavity. Removal of dental plaque Abundant alkaline rinse. Using unithiola, atropine, intravenous sodium thiosulfate. Local treatment is reduced to the antiseptic treatment, the use of enzymes and funds.

Case problem: 3

The patient complains of deep ulcerations of the gums, surrounded by a border of blue-gray color, mucosal pain. Anamnesis revealed that the patient is a long time employed biyohinol. An objective examination of the oral cavity in the presence of abundant dental plaque and tooth decay is determined by the ulcerative gingivostomatit, nepriyatgybreath. dark, almost black pigmentation on the tongue, cheek, lips, palate, tonsils. Pigmentation of the form of black circles around the holes ducts of salivary glands.

1. Put the preliminary diagnosis

2. your treatment strategy.

A.: Bismuth stomatitis.

Are removed dental plaque, necrotic gums, using enzymes and keratoplasty. Vitamin therapy.

Case problem: 4

A patient aged 57, complained of a whitish plaque and swelling of the tongue. Anamnesis: The patient is inpatient care about rheumatoid arthritis, drug uses krizanol.

OBJECTIVE: There hypersalivation, erythematous swelling in the language of dense whitish coating of the pearl in the form of plaques, resembling the clinical picture of lichen ruberplanus.

1. Put a diagnosed

A: The drug intoxication gold

2. . With an overdose of drugs of gold can not rise:  
and. nephropathy

b. dermatitis

in. stomatitis

, the anemia

on jaundice \*

Tests:

1. When lead intoxication should be applied:  
and unitiol \*

b. Antibiotics

in. 10% calcium chloride

, the adrenaline

on norepinephrine

2. In the treatment of the disease may be bismuth intoxication:

A caries

B pulpitis

I MEE

M. syphilis \*

A HRAS

4. What distinguishes the treatment of exogenous intoxications of drug intoxication:

- And the use of antidotes \*
- B application of desensitizing agents
- I the application of X-ray
- M. resuscitation
- A patient isolation

### 6.3. The practical part

Manual skill

Restoration of the erosion of hard tissue composite filling materials.

Purpose: Restoration of the erosive defect.

Testimony: Recovering shape and color of the tooth.

Equipment: Dental equipment, tools, glass, composite filling materials light-cured, fotopolimerizator, and tools for finishing.

Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Dissection of erosive surface.	0		20
2	Smoothing edges of the cavity (rebate), the creation of Retention points.	0		20
3.	Choice of color composite filling material.	0		10
4.	Application of the air conditioner on 20 sec., Flushing.	0		10
5.	Layering of the composite filling material, coverage extend halogen lamp	0		20
6.	Finishing thesea			20
	Total:	0		100

### 10. Study Questions

1. Which group of diseases is heterointoxication
- 2 The etiology of exogenous intoxication
- 3 Clinic of exogenous intoxication
- 4 Differential diagnosis of occupational exposures
- 5 Treatment of occupational exposures
- 6 Prevention occupational exposures

## LESSON № 18

**THEME: «Changes of oral mucous membrane in hypo- & avitaminosis.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

Diagnosis, treatment and prevention of changes in the oral mucosa during hypo- and avitaminosis.

#### **Tasks:**

#### ***The student should know:***

- role of vitamins in an organism's life
- Characteristics of vitamin
- Changes in the oral cavity with hypovitaminosis A, B1, B2, B12, C, PP, E.

#### ***The student should be able to:***

- The role of vitamins in an organism's life
- Characteristics of vitamin
- Changes in the oral cavity with hypovitaminosis A, B1, B2, B12, C, PP, E.
- A comparative diagnosis of hypovitaminosis

### 4. MOTIVATION

The student read in conjunction with the general change in the pathological processes of the organism in the oral cavity. Illnesses resulting from hypo- and avitaminosis in practice there are many, so we need to explore this topic.

### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric

dentistry, Phthisiology, STI diseases patalogical anatomy, microbiology, physiotherapy.

## 6. CONTENTOF CLASSES

### 6.1. The theoretical part

#### Vitamin B1 (thiamine - antinevritny)

Vitamin B1 was the first vitamin isolated from rice bran in the crystalline form C. Funk. It consists of 2-heterocyclic rings - pyrimidine and thiazole. Thiamine called because it contains sulfur (Tion - Gr.) And the amino group. In the acidic environment of thiamine is stable even at 140 ° C. In alkaline medium, the compound breaks down into its constituent components with the loss of vitamin action.

Human need for this vitamin 1-3 mg / day. The body's need for vitamins for children and lactating women is 1-2 mg per day, or rather 1 mg per 1,000 calories for fat-free diet

Hypo-and avitaminosis

With a lack of thiamine in the body does a person have a specific pathological condition called polyneuritis. Typical signs of this disease are: - loss of peripheral and central nervous system (paresis, paralysis, polyneuritis), hence the initial name "leg chains" - "beriberi" - a violation of the cardiovascular system (decrease in strength of heart contractions, expanding the boundaries the heart, tachycardia, congestive heart failure), the secretory and motor disorders of the gastrointestinal tract (loss of appetite, decrease gastric acidity, intestinal) - metabolic water (water retention in tissues, edema) and blood functions.

#### Practical application

Vitamin B1 is widely used in medical practice for treatment of various disorders (polyneuritis, neurosis), cardiovascular disorders (hypertension, sclerosis of the coronary vessels) and other THP (cocarboxylase) - is used in pathological conditions related to the violation of carbohydrate metabolism, kidney failure, violations of the coronary circulation. In dentistry, vitamin B1 is used to treat active caries glossalgii, paresthesia of the oral mucosa, the treatment of periodontal diseases, diseases of the mucous membrane of bacterial, fungal and medical nature. For the prevention of hypo-and vitamin B1 vitamin is used in combination with riboflavin (B2) and niacin fortification in bread products. Thiamine is also used for fortification of feed for livestock and poultry production.

#### Vitamin B2 (Riboflavin - Vitamin growth)

Vitamin B2 was first isolated from milk produced in the crystalline state, R. Kuhn

in 1933 godu. Riboflavin has the following structure: a heterocyclic ring -yellow is connected to the remainder pentatomic alcohol ribitol N-glycoside bond. Hence the name vitamin-riboflavin.

Riboflavin is easily restored by adding 2 atoms of hydrogen, reduced form of riboflavin обесцвечивается.Рибофлавин rapidly destroyed in alkaline medium, especially when heated, but resistant to acid, resistant to high temperature (290 ° C). Vitamin B2 is destroyed in the light under the action of ultraviolet rays. When storing milk in the light for three and a half hours destroyed up to 70% of vitamin B2 are vitamins. The source of the plant and microbial cells. The animal body is not able to synthesize riboflavin and receives it with food or as a result of the synthesis of intestinal microflora. In the free form of riboflavin is found primarily in milk, microbial cells - in the form of flavin mononucleotide (FMN) in animal cells - in the form of flavinadeninukleotida (FAD).

Physiological needs for this vitamin 2-2.5 mg / day.

Нypo-and avitaminosis

Lack of vitamin B2 in humans appears to stop the growth (in children), loss of appetite, weight loss, weakness, redness, itching and burning eyes, increased light sensitivity, blurred vision due to corneal vascularization, anemia, alopecia observed (patchy hair loss), seborrheic dermatitis, scaly near the nose, around the mouth and on the body as a whole, itching and inflammation of the vulvar skin, depression and degradation were clearly detectable. No signs of hypovitaminosis are only visible consequences of breach of exchange protsessov. Diagnozhypovitaminosis B2 is based on characteristic clinical signs and biochemical studies (conclusive decrease in the content of riboflavin in the daily urine above 100 mcg content in blood serum - less than 3 mg / l, erythrocyte - below 100 mg / l). Differentiate with vitamin deficiencies pellagra, beriberi And scattered. No signs of hypovitaminosis B2 cause many metabolic changes that lead to a decrease in energy production mechanisms, and hence to reduce volatile functions in the mouth: - burning, dryness, and hyperemia of the mucous membranes of the mouth, lips, tongue - red border on the lips appear smaller scales (scaling), vertical cracks within the province - in the corners of the mouth against the background redness painful cracks are formed (angular cheilitis - bridou), precedes the appearance of cracks soaking, maceration of the epithelium - in the language: burning, pain, atrophy of the filiform papillae of the tongue is smooth, becomes bright red.

Practical application

In clinical practice using Vitamin B2 with conjunctivitis, corneal ulcers and cataracts, and various skin diseases (dermatitis, neurodermatitis, seborrhea, follicular lupus), in case of poisoning with carbon monoxide (CO), toxicosis, liver disease, a debilitating muscle rabote. Vitamin B2 is used for fortification of bread, it is included in the diet for breeding chickens to promote growth, as well as feed for farm. V dentistry Vitamin B2 is used to treat glossitis, aphthous stomatitis,

eczematous hyalite, dermatitis, nasolabial folds, nonhealing wounds and ulcers.

Vitamin B5 (PP, niacin,)

Among other vitamins nicotinic acid is the most resistant to environmental factors. It breaks down a little during cooking (15-20%), makes good autoclaving, is not exposed to the damaging effects of sunlight, air or alkaline solutions. All these properties of nicotinic acid ensure its safety in food (including during cooking), and the possibility of manufacture of sterile solutions for parenteral use of. Unlike other vitamins, niacin can be synthesized in the human body from the essential amino acid tryptophan, which many in the proteins of animal origin, but there is little in vegetable proteins (1 mg in the formation of nicotinamide to 60 mg of tryptophan). Large amounts of vitamin E found in rice and wheat bran, liver, and yeast.

Adult daily requirement for this vitamin 15-25 mg, Newborn - 3-8mg, children and adolescents 10-15 mg.

Hypo - and beriberi

The disease, which occurs with a deficit of niacin, pellagra and is characterized by a triad of symptoms: - symmetrical lesion of the skin exposed areas of the body (dermatosis) - disorder of the gastrointestinal tract (diarrhea) and impaired digestion and absorption of nutrients - a violation of the nervous system (dementia - dementia, delirium) and several other signs in the mouth: burning and itching of the mucous membranes of the mouth, dry mouth, tongue increased in volume due to edema, visible imprints of the teeth. Color bright red tongue, papillae partly atrophied, language becomes a smooth, shiny, becomes crimson hue.

Hypervitaminosis can cause fatty liver, to strengthen the symptoms of B<sub>1</sub> deficiency sometimes occurs with an allergic reaction vomiting, cramps, diarrhea, astheny. Prakticheskoe primeneniye Pri use of nicotinic acid in clinical practice revealed a strong vasodilating effect of the drug, which is considered as the pharmacological properties of large doses of vitamin, due to the ability to open K<sup>+</sup> channels smooth muscle membrane hyperpolarization with development. Therefore, vitamin B5 (PP) is widely used for conditions mucosa spasm of smooth muscles, as well as in atherosclerosis, with hypercholesterolemia, for the normalization of the liver, kidney, brain

The use of vitamin E in dentistry: Niacin is used for the treatment of lichen ruberplanus, pathology, periodontal heylita, paresthesia, with medical stomatitis, neuritis, nevralgii. Niatsin sprout is a factor for microorganisms. Vitamin PP is used for fortification of bakery products, as well as part of the diet of farm animals, for 1 ton of food - 60g vitamin PP

Vitamin B6 (pyridoxine, pyridoxal, pyridoxamine) - antidermatitny vitamin

Vitamin B6 was discovered P. Györgyi in 1934, and four years later isolated in the

crystalline state. Synthesized for the first time that vitamin in 1939  
godu. Vitamin action have three vitamers - pyridoxine, pyridoxal and  
pyridoxamine. In the body, they pass each other.

The crystals are colorless, pyridoxamine, with a melting point of 160 ° C, soluble  
in water and some organic solvents. The crystals of pyridoxine melt at 195 ° C and  
almost insoluble in organic solvents.

Vitamin was synthesized plant and microbial cells. The largest number in the liver,  
eggs, yeast, carrots.

Hypo and avitaminosis

Hypovitaminosis B6 is manifested in the skin lesions (dermatitis, hence the name  
vitamin -), disorders of the nervous and hematopoietic systems. These disorders  
mucosal rtaovozhdayutsya increased excitability of the central nervous system,  
possible convulsions. It is established that the deficiency of vitamin in the brain  
inhibitory neurotransmitter not formed  $\gamma$ -aminobutyric acid (GABA). Violation of  
the hematopoietic system is manifested in the development of children. U deficit of  
vitamin B6 develops when feeding them formula milk containing insufficient  
amount of pyridoxine. Typical manifestations in this case are periodic seizures,  
malnutrition, anemia, irritability of the central nervous system recently found that  
B6-deficiency disease mucosa violation of lipid metabolism that leads to the  
development of atherosclerosis. In adults, signs of failure observed during long-  
term TB treatment with isoniazid, which is an antagonist of pyridoxal, as well as  
taking oral contraceptives containing. U pregnant with a deficiency of vitamin B6  
develop toxemia, dental caries, neonates have an increased excitability, B6 in oral  
mucosal rtaovozhdayutsya angular stomatitis, heylitom, desquamative glossitis,  
paresthesias of the oral mucosa, seborrheic dermatitis of the nasolabial fold, above  
the eyebrows and around the eyes.

Practical application

In medical practice, use of vitamin B6 and its coenzyme forms. Pyridoxine is used  
in pregnancy toxicosis, atherosclerosis, nerve and skin diseases, liver problems,  
congenital piridoksinzavisimoy anemia in children, trigeminal neuritis nerva. V  
dentistry it is used for the treatment of glossitis, paresthesias mucosal drug  
stomatitis.

Vitamin B3 (pantothenic acid, antidermatitny factor)

Vitamin B3 was first identified in R. Williams in 1933, he is 6 years it was in the  
crystalline state, and in 1940 was solved by the chemical structure and  
synthesized. Pantothenic acid is composed of residues of 2,4-dihydroxy-3,3-  
dimethylmalic acid and  $\beta$ -alanine.

Pantothenic acid is a viscous pale yellow liquid, readily soluble in water, it is

stable enough and is readily hydrolyzed at the place of the peptide bond under the action of weak acids and alkalis. Pantothenic acid is synthesized by microbial and plant cells. The main food sources of it for the man are liver, egg yolk, yeast, and green parts of plants. Pantothenic acid is synthesized, in addition, intestinal microflora. The daily need for adult 3-5 mg. For a newborn 3 mg for children and adolescents 5 mg. The active form of pantothenic acid - coenzyme A, or Co

### Practical application

In medical practice, pantothenic acid is used in metabolic disturbances, toxicoses. The most widely used in skin and hair, nails, as well as liver damage, heart muscle degeneration, etc. In children, it is used for the treatment of malnutrition and dental rahita. Pantothenic acid is used in diseases of the oral mucosa and periodontal, paresthesia, trigeminal neuritis and facial nerve, allergic reactions.

### Vitamin H (biotin )

At the beginning of the XX century. found substance that stimulates the growth of yeast. It was named biotin. In 1936. R. Bowling isolated from egg white and biotin was in the crystalline state. In 1939-1940. , a series of works by P. Gyorgy, dedicated to nutritional factors needed for protection against toxic effects of raw egg whites, as well as dermatitis.

Crystals of biotin are colorless, have the form of needles and melting temperature of 220 ° C, soluble in alcohol and water. Vitamin isolated from egg yolk, is  $\alpha$ -biotin, and milk or liver -  $\beta$ -biotin. The Chemical structure of biotin is a heterocyclic compound. Biotin molecule is composed of imidazole and thiophene cycles, and the side chain of residue is represented by valeric acid.

### Hypo-and avitaminosis

Has an effect on biotin as it prevents the development of a specific dysfunction of the sebaceous glands kozi. Nedostatochnost biotin in humans was not found. Hypovitaminosis vitamin H has been reproduced in volunteers treated with large amounts of protein foods eggs - avidin. In the first month they have developed dermatitis, mucosal muscle pains, increased cholesterol levels in the blood, the symptoms are eliminated through the mouth. Etibiotin. Biotin is a member of multivitamin preparations.

### Vitamin Bc (folic acid, folacin,)

In 1940, N. Hogan, and A. Perrault showed that chickens raised on artificial diet, anemia, which runs at full power. In 1941 he was selected vitamin, which is a factor in preventing this disease. He was named to the vitamin B or vitamin.

The term "folacin" join a large group of related compounds, which is the ancestor of folic acid. All of these compounds consist of a heterocyclic pteridina, para-

aminobenzoic acid and glutamic acid residues.

Folacin synthesized by microbial and plant sources of folate are cells. The main yeast, legumes, lettuce, cabbage. The daily requirement for vitamin B9 in adults is 0.5-1.0 mg, and basically compensated by its synthesis of intestinal microflora

Hypo and beriberi

Insufficient dietary folacin or violation of the absorption leads to the development of microcytic anemia in connection with violation of the biosynthesis of purine nucleotides and thymidylic acid, which causes inhibition of the biosynthesis of DNA, proteins, and propagation of hematopoietic cells, especially with a short half life (immune cells, erythrocytes, platelets, epithelial cells, keratinocytes, endothelial cells). Clinically, it manifests the development of anemia, immune deficiency, hemostatic disorders, atrophy of the epithelium of the gastrointestinal tract and respiratory tract, skin and mucous membranes.

Vitamin B12 (tsiankobalamin)

Vitamin B12 - antianemic factor. Tsiankobalaminy are a group of substances having the activity of vitamin B12. For the first time this vitamin was obtained in the crystalline state in 1948 E. Ricketts and E. Smith, in the years 1961-1971 an organic chemist RB Woodward synthesized vitamin B12. Crystalline its dark red are highly soluble in water and soluble in organic solvents.

B12 is sensitive to light when the light goes into effect

tsiankobalaminokobalamin. Kobalamin - one of the vitamins contains in its composition metal - cobalt ion. Vitamin B12 is not produced any plants or animals, it is synthesized only certain types of microorganisms.

Hypo- and avitaminosis Avitaminosis

B12 does not occur as a consequence of lack of intake of cobalamin from food, and as a result of not learning it in the gut. In humans, it is observed with a deficiency or complete absence of so-called "Intrinsic factor Castle." Lack of vitamin B12 leads to disruption of erythropoiesis and leucopoiesis with subsequent development of megaloblastic anemia and Addison-Biermer's.

Practical application

In clinical practice, vitamin B12 is used to treat certain types of anemia, with the greatest effect is seen in the combined its application with folic acid, as well as in lesions of the spinal cord and peripheral nerves, congenital disorders of exchange of vitamin B12. In addition, the use in pathologies of the liver, nervous system, skin diseases, for the treatment of polyarthritis, rheumatism. Measured in dentistry: vitamin B12 is used in glossalgia, disease, atrophic glossitis - Günter-Möller, paresthesia of the oral mucosa, lupus erythematosus. In agriculture - B12 enriched foods.

Vitamin C (ascorbic acid)

The discovery of vitamin C is associated with the treatment of scurvy, a disease

caused by lack of fresh vegetables in the diet .. Vitamin C - a white colorless crystals have a melting point of about 190 ° C, soluble in water and almost insoluble in organic растворителях. Ascorbin acid has two asymmetric carbon atoms and is an optically active compound to form four optical isomers and the two racemate.

Hypo and beriberi

Lack of vitamin C may be exogenous due to the lack of ascorbic acid in the diet and endogenous due to impaired absorption process and the functioning of its symptoms in organism. Osnovnye with vitamin A deficiency: increased capillary fragility, weakness, apathy, fatigue, decreased appetite, increased susceptibility to infections, sore gums, their swelling, diarrhea, bleeding when brushing teeth. The main signs of C-avitaminosis are disorders of protein metabolism, particularly fibrous proteins. As a result of possible changes in cell-cell interactions, a pathological increase in vascular permeability, bleeding gums, loss of teeth. Povitaminosis in the mouth - a hemorrhagic rash on the mucosa of the mouth, the phenomenon of necrotizing gingivitis and stomatitis. The gums become cyanotic, often described ulceration of gum edge, loosening and loss of dental teeth. V ascorbic acid is used in multiple caries, periodontal disease, poorly healing ulcers, infections of the oral mucosa, gums, lips.

B-vitamins A, retinol

or vitamin A1-neoretinol - A1-stereoisomer stereoisomer A2. Vitamin A N. Drummond was opened in 1916 and synthesized in 1933. For the first time vitamin A was isolated from a carrot, so the English carrot (carrot) was the name of the group of vitamin A - carotenoids.

Hypo-and avitaminosis

The earliest sign of failure is a breach of dark adaptation and night blindness (day-blindness). In addition, a delay of growth at a young age, follicular hyperkeratosis (excessive cornification of the skin caused by a delay shift of the epithelium), dry mucous membranes, (also because of delayed renovation of the epithelium), xerophthalmia (dryness of the cornea), followed by its softening under the action of microorganisms (Keratomalacia .) For this reason, the testes may atrophy, leading to sterility, reproductive disorders in sistemy. Gipovitaminoz of children of retinol deficiency occurs in infants, especially premature infants, due to the fact that in the liver of newborn vitamin A reserves no. In addition, infants are not accompanied by the formation of vitamin A from carotene, as they do not have the enzyme karotinazy. That is why such a demonstration of hypovitaminosis A, as xerophthalmia, often observed in hypovitaminosis A detey. Proyavleniya in the oral mucous membranes mouth. (giperekeratoz, decreased secretion of the salivary glands, sialoschesis), "teeth are covered with chalk as" suppression of antibody synthesis and phagocytosis , decreased immunity. The mucous membrane loses its luster, becomes turbid, whitish layers appear, resembling leukoplakia. There is a dry mouth and lips area red caymi. No less severe pattern develops and

hypervitaminosis, which in recent years often recorded in children in connection with an overdose of the vitamin. It is noted inhibition of many synthetic processes that mucosal weight loss, loss of appetite, vomiting, dyspeptic symptoms, hyperlipidemia and hypercholesterolemia, there is hair loss. Disturbed mineral metabolism. At the same time intensified the process of demineralization. Practical application of

In medical applications make use of natural and synthetic vitamin A for treatment of hypo-and avitaminosis, infections and colds, skin lesions (wounds, burns, psoriasis, eczema), eye disease (retinitis, day-blindness, Keratomalacia), digestive diseases (chronic colitis, peptic ulcer disease), for the prevention of stone formation in the biliary and urinary tracts, and hypertension. Can be used of vitamin A in preventing the people whose work is connected with a voltage of, for promoting growth and development of children, strengthen regeneration of poorly healing tissue, increasing mucous shell cavity infections to prevent dental birth. Vitamin A is used to accelerate epithelization of erosions and ulcers, to reduce the dryness in the mouth for the treatment of leukoplakia, lichen ruberplanus, angular hyalite, and burns.

Vitamin D (calciferol - antirahitichesky)

In XVII century it was known children's disease rickets, which cured certain foods, including - fish oil. Later researchers found the effect of sunlight on the disease. In 1924, it was found that the food under the influence of ultraviolet irradiation, the activation of some antirahiticheskikh factors.

Hypervitaminosis in adults and children

Development of symptoms caused by excessive consumption of hypervitaminosis of vitamin and its ability to kumulirovatsya in the body. Children up to 6 months. hypervitaminosis arose after receiving 4 million ME vitamin D<sub>3</sub>, and from 6 to 8 months. - 600 thousand MB. Sredi factors contributing to the development of hypervitaminosis, it should be noted starvation protein A-and C-hypovitaminosis and increased sensitivity of the child's body to high doses of vitamin D<sub>3</sub>. Along with this, it should be noted that hypervitaminosis A may occur as a result of genetically determined hypersensitivity of some individuals to vitamin D, which in this case may cause toxicosis even when administered in conventional dozirovka. Osobenno highly sensitive to the toxic effects of vitamin D have children, the sick rachit. Gipovitaminoz in grown -ups a lack of vitamin D in adults develop osteomalacia (softening of bone tissue), which manifests itself decalcification of bones, their osteoporosis, with the deterioration of general condition, loss of appetite. In women with osteomalacia observed irregular menstrual cycle, ability to bear children.

Vitamin E (tocopherol - antisterilny)

In 1922, G. Evans and A. Bisho discovered fat-soluble vitamin, which they called

tocopherol (literally contributing to leave). Later, he was named vitamin E. In 1936, from wheat germ oil and cottonseed oil were divided into three benzopyran derivatives, which were vitamin E:  $\alpha$ ,  $\beta$ ,  $\gamma$ -tocopherol. In 1938,  $\alpha$ -tocopherol have been synthesized.

Vitamin E - a colorless viscous oil. Insoluble in water but soluble in fats, destroyed by ultraviolet rays. Vitamin E is stored in alkalis and acids and resistant to heat, is not destroyed even at 170 ° C. The source of tocopherols for human rights are vegetable oils. Especially a lot of it in wheat germ and the oil obtained from them. Vitamin E is also found in meat, liver, egg yolk, milk (especially in summer). Adult daily requirement for this vitamin 10-20 mg, Newborn - 4-5 mg, children and adolescents - 7-15 mg.

.Hypo and beriberi.

a man almost is met. E-vitamin deficiency characterized by inhibition of conversion of methionine to cystine required for the synthesis of proteins, glutathione and other important compounds for the organism, which can lead in particular to muscular dystrophy, with the advent of peroxides and lysosomal enzymes in the muscles and blood, as well as other muscle diseases. Typical constant feature is violation of Education creatine and creatinine excretion in the urine is reduced, in parallel when kreatinurii. There are hypotonus and muscle weakness, paralysis, until the hind limbs in experimental rats. E-hypovitaminosis burdened with a deficit in the diet of polyunsaturated fatty acids such as linoleic, linolenic, arachidonic .. With hyper vitaminosis hypocoagulation marked by malabsorption of vitamin K, the weakening of the dark view of the antagonism between vitamin A, muscle cramps, attenuation of sexual activity. In dental practice: applied in the treatment of inflammatory, erosive and ulcerative lesions and scarring of the mucous membranes of the mouth, inflammatory and degenerative diseases of the periodontal bone.

Vitamin K (naphthoquinone)

His plant species - K1 was isolated from alfalfa and from fishmeal - K2. On top of Doyzi synthesized artificial vitamin K3 - medion. In 1943, a collection of papers on this vitamin Vitamin K - antigemorrhagic, mainly represented by two compounds vitamin K1 (fillohinon) and K2 (or farnohinonmenahinon). They are derived naphthoquinone having isoprenoid side chain. K1 is a light-yellow liquid, unstable when heated in an alkaline medium and irradiated, vitamin K2 - yellow crystalline powder, is also unstable in the environment. Both drugs are insoluble in water but soluble in organic solvents: benzene, chloroform, and hexane.

Hypo- and avitaminosis

Cases of deficiency of vitamin K is very small. Deficiency of vitamin K is usually not associated with inadequate intake of it, because intestinal bacteria in large quantities to synthesize. Hypovitaminosis may occur in liver disease, biliary duct disease. Because vitamin K - a fat-soluble vitamin, a disease in which disturbed

absorption of fats, such as celiac disease and cystic fibrosis, may contribute to its deficiency in children and adults. Drinking excessive amounts of vegetable oil also violates the absorption of vitamin C. Its deficiency can develop in people who receive anticoagulants to prevent blood clots.

Practical acceptance Vitamin K

and its products applied for bleeding caused by drugs (salicylates, sulfonamides, etc.), or bleeding associated with a decrease in blood clotting, as well as specific antagonists with an overdose of indirect.

Ubiquinone (coenzyme Q)

Ubiquinone (coenzyme Q) belongs to the vitamin-like substances zhirorasvorimym In 1955, opened a substance similar in structure to vitamins K and E. It is called ubiquinone or coenzyme Q. Some researchers attribute it to vitamins, some - a vitamin-like fat-soluble substances, but the vitamin activity of ubiquinone was proved in experiments on many species of animals.

Hypovitaminosis and avitaminosis

in humans has not been described. Signs of deficiency of ubiquinone for the person not described, but in some conditions there is increased demand for it. So it came to refer to the vitamin-like substance.

Practical application

In medicine, ubiquinone is used as a medicinal remedy for violations of muscular dystrophy, myocardial contractility, certain types of anemia, as well as by athletes to restore the physical V Dentistry ubiquinone used in combination with vitamin E, B12 and iron compounds for the treatment of periodontitis.

Vitamin F

It is a complex of unsaturated fatty acids, which can not be synthesized in the human body, and at the same time required for its normal functioning. The structure of vitamin F are Essential unsaturated fatty acids: linolenic, linoleic. These acids are part of the vegetable fats, and arachidonic acid is found only in animal fat.

The daily requirement for vitamin F for adults is about 1 g, which corresponds to 20-30 g of vegetable oil.

. Hypovitaminosis, avitaminosis

Most often vitamin F appears in early childhood (children under one year), which may be due to insufficient intake of food with them, malabsorption, infectious diseases. Clinic hypovitaminosis seen lag in growth, weight loss, peeling skin, thickening of the epidermis, increased water consumption with a decrease in urine output, loose stools.

## **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Variants of questions:**

1. Tell us about vitamin B1.
2. What changes occur during hypovitaminosis B1
3. Tell us about Vitamin B2.
4. What changes are occurring in hypovitaminosis B2

5. Tell us about vitamin C
6. What changes are occurring in hypovitaminosis C
7. Tell us about vitamin E
8. What changes are occurring at gipovitaminozeRR

**Answers:**

1. Vitamin B1, thiamine called because it contains sulfur (Tion - Gr.) And the amino group. In the acidic environment of thiamine is stable even at 140 ° C. In alkaline medium, the compound breaks down into its constituent components with the loss of vitamin action.

Human need for this vitamin 1-3 mg / day.

2. With a lack of thiamine in the body does a person have a specific pathological condition called polyneuritis. Typical signs of this disease are: - loss of peripheral and central nervous system (paresis, paralysis, polyneuritis), hence the initial name "leg chains" - "beriberi" - a violation of the cardiovascular system.

3. Vitamin B2 was first isolated from milk produced in the crystalline state, R. Kuhn 1933. Riboflavin easily restored by adding 2 atoms of hydrogen, reduced form of riboflavin обесцвечивается. Рибофлавин rapidly destroyed in alkaline medium, especially when heated, but resistant to acid, resistant to high temperature (290 ° C).

4. Lack of vitamin B2 in humans appears to stop the growth (in children), loss of appetite, weight loss, weakness, redness, itching and burning eyes, increased light sensitivity, blurred vision due to corneal vascularization, anemia, alopecia observed (patchy hair loss), seborrheic dermatitis, scaly near the nose, around the mouth and on the body as a whole, itching and inflammation of the vulvar skin, depression, and degradation of the individual.

5. The discovery of vitamin C is associated with the treatment of scurvy, a disease caused by lack of fresh vegetables in the diet. Vitamin C - a white colorless crystals have a melting point of about 190 ° C, soluble in water and almost insoluble in organic solvents

6. Lack of vitamin C may be exogenous due to the lack of ascorbic acid in the diet and endogenous due to impaired absorption process and the functioning of its symptoms in the organism. Mainly with vitamin A deficiency: increased capillary fragility, weakness, apathy, fatigue, decreased appetite, increased susceptibility to infections, sore gums, their swelling, diarrhea, bleeding when brushing.

7. Among other vitamins nicotinic acid is the most resistant to environmental factors. It breaks down a little during cooking (15-20%), makes good autoclaving, is not exposed to the damaging effects of sunlight, air or alkaline solutions.

8. Manifestations of hypovitaminosis of vitamin E in the mouth: burning and itching of the mucous membranes of the mouth, dry mouth, tongue increased in volume due to edema, visible imprints of the teeth. Color bright red tongue, papillae partly atrophied, language becomes a smooth, shiny, becomes crimson hue.

## 6.2. ANALYTICAL PART

Situational problem number 1.

The patient complains of 60 years, sore gums, diarrhea, bleeding when brushing your teeth, swelling, weakness, apathy, fatigue, decreased appetite, increased susceptibility to infections, increased capillary fragility. An objective examination of the patient, pale, in the mouth are marked hemorrhagic lesions on the oral mucosa, the phenomenon of necrotizing gingivitis-stomatitis. Bluish gums ulcerated gingival margin notes, loosening and loss of teeth.

Put the preliminary diagnosis. Your tactics.

Answer: Hypovitaminosis vitamin C. Appointment of high-calorie diet, vitamins B and C. Local treatment is to remove dental plaque, antiseptic treatment of the gingival margin, the imposition of keratoplasty.

Situational problem number 2

Patient 56 years complains of dry mouth and difficulty in eating. From history we know that the patient noted dry eyes when viewed from the mucous membrane without light, cloudy, in the cheeks are marked with lace pattern. There is epidermatitsiya lips in the area red fringe.

Identified giperkeratoz, decreased secretion of the salivary glands, sialoschesis, "teeth like chalk covered." Put the preliminary diagnosis. Your tactics.

A: Beriberi vitamin A. vitamin A to accelerate epithelialization, to decrease the dryness in the mouth.

Situational problem number 3

B. Patient 35 complained of painful cracks in the corners of his mouth cracks on the lips.

Objective: to corners of the mouth are maceration, desquamation of the epithelium, covered with a crust cracks. There is dryness, redness and peeling of the lips, vertical cracks. There seborrhea crust on the wings of the nose. Language of bright red, shiny dry. The patient complains also photophobia, lacrimation.

1. Put a preliminary diagnosis:

and. eczematous cheilitis

b. beriberi vitamin B2 \*

in. atopic cheilitis

, the vitamin deficiency of vitamin B12

Dr. allergy

2. Vitamin B2 is:

and. pyridoxine

b. tsiankobalamin

in. Riboflavin \*

thiamine, the

d. ritinol

3. The daily requirement of vitamin B2

and. 2.5-3mg \*

b. 10-12 mg

in. 0.2-0.5 mg

was 8-10 mg

on 100 mg

4. The formation of crusts on the seborrheic wings of the nose characterized by:

and. lupus erythematosus

b. beriberi vitamin B2 \*

in. hypovitaminosis B12

Mr. allergies

d. pillagry

5. For the final diagnosis should be investigated:

and. CBC

b. cerebrospinal fluid

in. immunogram

on blood levels of riboflavin in urine and \*

Situational problem № 4

Patient A., aged 25 complained of a sharp bleeding gums, bleeding on the mucosal appearance of the lips and cheeks, gratuitous bruising on the skin. General condition: severe weakness, fatigue, muscle pain. The skin is dry, rough, visible bleeding. Objective: to oral mucosa gingival swelling, bleeds, teeth covered with a soft touch, there are petechial hemorrhages on the mucosa of lips and cheeks, bad breath.

1. Put preliminary diagnosis:

and. Hypovitaminosis vit.S \*

b. hypovitaminosis B2

in. allergy

g. avitaminosis B12

on disease Verlgofa

2. Ascorbic acid is:

and. antiseptic

b. coagulant \*

in. antioxidant \*

Mr. antideprisantom

on diuretic

3. The action intensifies vit.S:

and. riboflavin

b. tokoferona acetate

in. retinol

was nicotinic acid.

on routine riboflavin \*

4. Avitaminosis:

and. beriberi

b. Scurvy \*

in. pellagra

, the leprosy

d. anemia, Addison-Beemer

### 6.3. The practical part

**Purpose:** To teach students of the local treatment with hypo-andavitaminosis of vitamin C

**Indications:** Diagnosis of diseases of the oral mucosa.

**Equipment:** safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: Local treatment with hypo-andavitaminosis of vitamin C

1. Wearing protective equipment (glasses, rubber gloves, gauzmask)
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. Application of drugs

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing protective equipment (glasses, rubber gloves, gauzmask)	0	10	20
2	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	Application keratoplasty	0	10	20
	Total:	0		100

### 10. Study Questions

1. importance of vitamins in the body.
2. Give a description of vitamins.
3. changes in the oral cavity in A, B1, B2, B6, B12, C, PP, Ehypovitaminosis
4. differential diagnosis of hypovitaminosis.
5. localandgeneral treatment ofhypovitaminosis.

## LESSON № 19

**THEME: «Changes of oral mucous membrane in endocrinologic disorders. Changes of oral mucosa in diabetes mellitus.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational tasks.
- TCO: slide scope, TV-video, computer.
- 

### 2. DURATION OF STUDY SUBJECTS

Numbers of hours - 390 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa in diabetes clinic, and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

***The student should know:***

- Clinical features of diabetes mellitus
- Histological changes of the oral mucosa in diabetes mellitus
- Treatment

***The student should be able to:***

- Describe the elements of damage in diabetes
- Identify the histological changes in diabetes
- Provide a differential diagnosis

### 4. MOTIVATION

Knowledge of various techniques for patients with diabetes is important in the prevention and treatment of diabetes. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology,

physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Phthisiology, STI diseases pathological anatomy, microbiology, physiotherapy.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

The role of endocrine disorders in the etiology and pathogenesis of diseases of the oral mucosa is so great that AI Rybakov identified by their individual nosological forms of destruction of language, gums, lips. According to different authors, the frequency of lesions of the oral mucosa, tongue and lips with endocrine disorders varies from 2 to 80%. The most common form of expression in the mouth of endocrine disruption is a catarrhal stomatitis, with lesions of the gums - catarrhal gingivitis. This form of disease of the oral mucosa most frequently encountered in various dysfunctions of sexual glands. Under the influence of estrogenic hormones can often note the change of the epithelium of the oral mucosa during the menstrual cycle. Marked gingivitis during puberty, pregnancy, menopause. In the literature there are terms that reflect the relationship of hormonal disorders and conditions of the oral mucosa. So, gingivitis with endocrine disorders are called hormone. Developing adolescents gum lesion with a characteristic localization in the anterior teeth are called juvenile gingivitis. The dependence of the state of the oral mucosa of the state of sexual glands, especially in their dysfunction. Induced (surgery, radiotherapy), castration often leads to inflammation of the mucous membrane of the gums, the phenomena of atrophy, osteoporosis, jaw bones, periodontal disease.

The states are responsible for flushing and increased blood flow, increased permeability of the vascular wall, which explains the clinical manifestation of gingivitis catarrhal type. In women with ovarian disease reduced regulatory processes at the level of circulatory systems. If you fall in estrogen levels observed degenerative changes in the epithelium and connective tissue stroma of the mucous membranes of the mouth.

Thus, the polymorphism of clinical manifestations of associated disorders of the endocrine system and the oral mucosa underlines the importance of hormones in the regulation of various aspects of tissue metabolism.

Full activity of the endocrine system provides normal course of metabolic processes in the body. Violation of hormone production causes disorder of metabolism and function of tissues and organs, including the oral mucosa, regardless of excessive or insufficient function of the endocrine glands.

According to EV Udovitskoy (1975), juvenile gingivitis girls there for 1/2-1 year before the onset of menstruation in 8,1-2,1% of cases. Marked correlation between the development of inflammatory changes in the gums with menstruation: enhancing inflammation of the gums before each menstrual period is noted for 2-3 days, the decline in her notes on the 2 5th day of menstruation. Often, hormonal gingivitis oral mucosal increased mobility of teeth due to osteoporotic bone

structure crest. Known pregnancy gingivitis, which occurs, according to different authors, within the limits of 10-100% of cases. Gingivitis is pregnant develops initially in the form of catarrhal inflammation of the gums, often with signs of hemorrhagic nature. Later there may be gingival hyperplasia, often leading to complete closure of the coronal part of teeth. Usually gingivitis pregnancy appears on the 2-4th month of pregnancy and disappears spontaneously after birth.

Catarrhal gingivitis during climax is localized to the gingival margin (marginal hormonal gingivitis). According to EV Udovitskoy (1975), in women with physiological menopause marginal catarrhal gingivitis observed in  $5,5 \pm 1,3\%$ . Catarrhal gingivitis often develops on the background sialoschesis loss relief gingival papillae, atrophy of the phenomena of the gums, exposing the necks of the teeth, burning and soreness in the area of the gingival margin.

When gingivitis in postmenopausal osteoporosis may experience jaw bones, combined with resorption of the alveolar processes. Such a defeat gum many consider the physiological changes caused by deficiency of sex hormones.

Diabetes chronic disease associated with the violation of carbohydrate metabolism in the body. In diabetes increases blood sugar and observed its urinary excretion.

The proximate causes that lead to diabetes, may be different: physical injury, severe trauma, emotions, etc., infectious diseases, inflammation, poisoning, eating disorders (particularly the abuse of sweets).

Diabetes occurs when insulin deficiency in the body, which is associated with a number of reasons: a) insufficient production and secretion of insulin in pancreatic disease, and b) an increased need for insulin in some diseases of the pituitary, adrenal, etc., and c) increased destruction of insulin liver enzyme.

In some families, diabetes occurs over several generations. Therefore, family members of patients with diabetes mellitus should undergo screening to detect possible overt or latent diabetes and early treatment. Particular attention should be given treatment for women suffering from diabetes mellitus in pregnancy.

More often diabetes develops slowly, patients initially may not notice it. The first signs of the disease: a feeling of dryness in the mouth, thirst, profuse and frequent urination, sudden weight loss, despite increased appetite, fatigue and reduced work capacity. Often there are dry skin, itchy skin, eczema, skin abrasions. If you suspect that diabetes mellitus is necessary to examine the urine. Due to the presence of sugar in the urine relative density of urine is increased, 1,030-1,040 (the norm around 1.020).

Mild form of the disease is more common in older and obese people and relatively easily treatable if patients comply with prescribed diet. In diabetes moderate to digest food appropriate to the needs of the body, systematically administered insulin.

Special attention should be given a severe form of diabetes, in which carbohydrates are taken with food, usually excreted in the urine in the form of sugar. In these cases, the digestion of food has entered the big daily doses of insulin. In severe diabetes patients have in the blood of products of incomplete breakdown of fat - ketone bodies.

These substances are excreted in the urine and exhaled air, and they have to poison the body (loss of appetite, headache, increasing weakness), which can lead to diabetic coma.

If untreated, the patient's condition is deteriorating rapidly and there are various complications (loss of blood vessels, heart, brain, limbs, kidney disease, eye with visual impairments, the development of diabetic polyneuritis, neuralgia), often there is inflammation of the gall bladder and liver (cholecysto-hepatitis).

The most common form of diabetes is a manifestation of catarrhal gingivitis, which occurs, according to various authors, 10-40,7% of patients. Haemorrhagic form of gingivitis can develop in patients with untreated diabetes. In patients with diabetes revealed edema and hyperemia of the language. Diffuse catarrhal stomatitis, bright red oral mucosa against sialoschesis marked TT Shkolyar (1969) 2 / 3 of patients with diabetes.

A characteristic feature is a direct correlation of gravity of inflammatory changes of the oral mucosa of the current diabetes, old age and his development of the patient.

According to our data, patients with diabetes, there is dryness of the skin and mucous membranes of the mouth, yellowish color of the skin of palms and soles. Marginal gingivitis catarrhal is characterized by swelling of gingival papillae kolboobraznym. On the cheeks and vestibular surface of the lips may be detected enantemy, candidiasis the oral mucosa, which may be recurrent in nature. The intensity and periods of exacerbation of his are in direct Depending on the intensity of the underlying disease. In decompensated breach of carbohydrate metabolism yeast fungi of the genus *Candida* can always be determined by seeding and bacterioscopic study scrapings from the surface of the oral mucosa. In chronic candidiasis during hyperemia may acquire stagnant, and mycelial filaments grow into the subject areas of the mucous membrane, giving her resemblance to the changes. Candidiasis develops most often in debilitated patients with poor hygienic maintenance of the mouth. The mucous membrane of the lips, cheeks, tongue, palate is dry, thinning, bright red color. In the initial stages of the development of candidiasis of the mucous shell there are small foci of white color, which subsequently increase and reach a large size, forming a loose cluster white bloom. When the plaque can be removed, and then exposed flushed, easily bleeding mucosa. Depending on the Localization of plaque density can vary. The glossitis characterized by congestive hyperemia, foci of atrophy filiform papillae, alternating with dense grayish-white coating on the surface, which is not completely removed. Patients' complaints of burning, pain, dry mouth caused by fungal infection of the language. Kandidamikoticheskycheilitis is expressed in the red fringe thinning lips, intense congestion zone Klein. In the corners of the mouth, there are usually

infiltration, long-term healing of the crack.

Clinical studies have shown that patients suffering from decompensated form of diabetes, may develop ulcers of the oral mucosa. In an environment of ulcers mucosa with no marked changes. In the initial period of development its bottom is covered with sores necrotic masses, which are subsequently rejected, leaving a smooth surface. Long-term survival and and diffuse infiltration in the base make it necessary differential diagnosis of ulcers with neoplastic processes. History, nature of comorbidity, lack of vegetation in the bottom and edges, bleeding, negative results of cytological study, a positive trend during the general and local therapy showed no specific lesion. Quite often, the sugar Diabetes is accompanied by lichen planus of the oral mucosa. At the same time can be observed all the known clinical forms of it: the typical, exudative-hyperemic, erosive and ulcerative, bullous, infiltrative-others depending on the underlying disease clinical picture of lichen ruberplanus of the mucous membranes of the mouth can vary, especially in cases of accession fungal flora. Erosive and ulcerative changes in resistance to different known methods of drug therapy. Clinical symptom mokomplex, diabetes mellitus, hypertension, lichen planus - Known as a disease Grynszpan. That is why the identification of red flat stripping on the oral mucosa should alert the physician dentist for possible diabetes and hypertension the disease. The changes are seen by type of leukoplakia, more often localized on the dorsal and lateral surfaces of the tongue.

With the introduction of dogsfloridzina, dithizone, alloxan at different times from the beginning of the experiment on the oral mucosa can be notice sores, especially in the areas of trauma her teeth, her cheeks through the closing of the teeth, in some cases have evolved phenomenon warty dyskeratosis resembling verrucous leukoplakia, which subsequently confirmed and histopathological analysis. In the case of complications of experimental diabetes mellitus areas of hyperkeratosis torn away and in their place, formed large ulcers. These ulcers characterized by a smooth-bottomed, developed infiltrate the base and lack of reactive inflammation in surrounding tissues.

In the treatment of diabetes prescribed a balanced diet with necessary for proper metabolism, the ratio of basic food products (proteins, fats, carbohydrates).

Respect for the individual approach to diet is mandatory in appointment of a rational diet. The doctor not only picks up the individual calorie diet, but also alters its structure and, given the particular the disease. Thus, the appearance of the patient in the urine acetone fats temporarily

excluded and added carbohydrates, respectively, increase the dose administered of insulin. When diabetes mucosal enlarged liver and increase in blood ketone bodies, prescribe a diet with cottage cheese and oatmeal since these products contribute to the normalization of lipid metabolism, appoint lipokain.

In the treatment of insulin, the patient should receive a dose of only insulin, which promotes the fullest absorption assigned to him the diet. An overdose of insulin causes a sharp decrease in the amount of sugar in blood and attack of hypoglycemia, which is characterized hunger, the total weakness, a feeling of heat in the body, sweating, palpitations, trembling hands and the whole body, a common concern. If time does not take appropriate measures the patient's condition deteriorates. Appear convulsions, confusion and dizziness. In severe cases, death can occur. For Elimination of the attack is sometimes enough to eat one or two lumps of sugar or drink a glass of sweet tea. In severe cases, resort to the doctor: patient intravenous glucose, adrenaline, used cardiac funds, etc.

Thyrotoxicosis - a disease of the body, caused by lesions thyroid, oral mucosa excessive production of hormones that cancer-thyroxine.

Clinicians know signs of hyperthyroidism with similar phenomena observed in the unrest and fear: heart rate, increased palpebral fissures and protrusion of the eyeballs, pulsation vessels of the neck, trembling hands, etc. Frequently in patients with thyrotoxicosis preceded development of the disease trauma, fatigue, pregnancy, lactation and menopause, infectious diseases, certain endocrine disorders, diseases individual organs and systems, organic diseases of the central nervous systems, etc. On the weakening of the cerebral cortex thyrotoxicosis may develop even under the influence of factors that normal conditions does not significantly affect the condition of the patient, that confirms the theory of central origin thyrotoxicosis. There is deterministic point of view of constitutional disposition towards to thyrotoxicosis.

Patients usually complain of temper, irritability, mild irritability, increased fussiness, haste, distraction, reducing of memory. As a rule, disturbed sleep, which becomes restless, with many dreams. Ability to work is reduced due to the emergence muscle weakness, fatigue, hand-shake and the whole body. The heartbeat increases sharply during exercise. Shortness of breath, sweating, low-grade fever, increased appetite, diarrhea, thirst, a significant weight loss, exophthalmos are the symptoms of hyperthyroidism.

The vast majority of patients has already been in the external examination determined by the enlargement of the thyroid gland. The thyroid gland or soft moderately dense, lively, not soldered to the surrounding tissues .At palpation of the thyroid gland can be detected pulsation of blood vessels. I

patients have expressed to one degree or another exophthalmos, which gives patients frightened look; exophthalmos appearance makes patients first consult a doctor. Exophthalmos may vary from subtle exophthalmia to nearly complete protrusion of the eyeball. Exophthalmos in thyrotoxicosis is symmetric, two-sided. Often, for exophthalmos take effect lagophthalmos (nesmykanie century).

Eye gap widened in thyrotoxicosis (symptom dalrymple) there is a rare flash (symptom Shtelvaga) and the sparkle in her eyes. There is violation of the convergence on one or both sides (a symptom of Moebius). Positive symptom Graefe, due to disorder of muscle coordination eyeball and upper eyelid.

When thyrotoxicosis develops it changes in the cardiovascular system as a result of excess thyroid hormone on the central nervous system and directly on the heart. It is noted arrhythmias heart in the form of extrasystoles, atrial flutter and atrial fibrillation and tachycardia.

Tachycardia persists at rest, but increased under the influence of physical the load. Tachycardia mucosal rhythm disturbances, manifesting in form of arrhythmia, alternated by atrial fibrillation. Changes blood pressure in the direction of increasing the maximum pressure (150-170 mm Hg. of Art.), and sometimes reducing the minimum pressure (40-20-0 mm Hg. Art.)

increased pulse and venous pressure.

Changes in the gastrointestinal tract are reduced mainly to improve motor function of his, marked diarrhea, vomiting, and sometimes bouts of abdominal pain. The skin is moist patients. There is melasma the skin. Often there trembling hands, eyelids, tongue and lower the extremities.

When thyrotoxicosis observed disorder of thermoregulation. Multiple cavities in thyrotoxicosis described Malygina MA (1957), T. Shershakova N. (1957) in 92.2% of patients found a tooth, as the severity of thyrotoxicosis index of caries increases and reaches to 21.2 times. On According to the author, the specific clinical caries appears to localization on the front teeth, chalky stains initial decay quickly transformed into the next stage, which leads to tooth decay. There were two mechanisms that explain the sharp decay for at hyperthyroidism. When it marked dismineralization teeth, as well as changes in the activity of salivary glands.

Various authors have found a few different changes in the mucous membranes in hyperthyroidism: blood flow to the gums, chronic catarrhal gingivitis, hemorrhage, glossitis catarrhal, catarrhal stomatitis. According to MAEframe(1970), these changes are due to hypovitaminosis C concomitant hyperthyroidism.

Kutin SA (1970) found hyperthyroidism in 82% of patients with exudative form of exfoliative cheylita and 26% of patients with dry his form.

Frequent symptoms of hyperthyroidism, manifesting in the oral cavity by disorders, are burning of the mucous membrane, reducing the sensitivity of taste. Through the closing of the teeth in the cheeks can often be noted clouding of the mucosa. Filiform papillae of tongue often smoothed. Foci of desquamation of the epithelium may be localized not only on the dorsum of the tongue, but also on its side and bottom surfaces, as well as on the cheeks and vestibular mucosa of the mouth, which corresponds to the clinical picture of geographic stomatitis. Sites of desquamation of the oval, rounded in shape, ranging in size from 0.1 to 1 cm in diameter, surrounded by a whitish rim. The changes are characterized by a red border of lips, dryness, the presence of whitish, usually patient scales, after which what is revealed is flushed, with signs of maceration, the surface; rarely seen picture of the exudative form of exfoliative cheilitis.

In the differential diagnosis should take into account the similarity of clinical pictures in the mouth with thyrotoxicosis (geographic stomatitis) with typical or exudative hyperemic form of lichen ruber planus, manifestations of popular syphiloderm.

In case of violation of carbohydrate metabolism in the oral mucosa changes occur, the severity of which depends on the severity and duration of diabetes. These changes are sometimes the first sign of diabetes. Relationship of diabetes with changes in the oral cavity was first noted in 1862, Seifert.

The earliest symptom is a dry mouth as a result of dehydration. Often, dry combination with increased thirst. Reduced salivary secretion leads to catarrh of the mucous membrane: it becomes edematous, hyperemic, shiny, sticky. In places minor mechanical trauma observed mucosal lesions in the form of hemorrhage, and sometimes erosions. In this case, patients complain of pain that occur during a meal, especially when taking a hot, spicy and dry food. With a high content of sugar in the blood often changed back the language: it is covered with white coating, drying, the deposition of the painful cracks. In addition, the diabetes may experience paresthesia. Burning of the mucous membrane may be associated with itching of the skin and in the genital area.

LD Reztsova (1969) indicates that in patients with decompensated diabetes may be reduced taste sensitivity to sweet, salty, sour, and in some patients and to the bitter, which according to the author, is in inverse proportion to the duration and severity of disease.

Along with these changes in diabetes is often marginal periodontal inflammation. Initially marked catarrhal changes and gingival swelling buds, and then formed the pathological periodontal pockets are observed overgrowth of granulation tissue and alveolar bone destruction, often caused abscesses. Is a direct correlation between the severity of gingivitis and prescription and severity of diabetes. Patients in this period complain of bleeding gums, pain when eating, tooth mobility, in a state of neglect - their loss. EE Platonov (1968) suggested that in diabetes the alveolar bone changes are specific, but at present it is not

confirmed.

In the diagnosis of diabetic gingivitis are important presence of common symptoms of diabetes, sugar in urine, increased sugar content in the peripheral blood. In diabetes as a complication in the oral mucosa may develop candidiasis. In patients with decompensated diabetes on the oral mucosa occur ulcers, characterized by long-term trend.

Carry out treatment of diabetes, designate funds, reduce dryness of the oral mucosa and catarrh. Diabetics need regular dental health, and therefore they should be at the dentist dispensary.

### **Etiology and pathogenesis**

The highest value in the etiology of periodontal disease status and are the metabolic products of dental plaque and dental plaque, oral mechanisms that can amplify or attenuate the pathogenic potential of microorganisms and their metabolic products, as well as the general factors that regulate the metabolism of oral tissues which depend on the reaction to pathogenic effects.

Recently, shape the concept that the mouth is seen as a balanced biological system, and periodontal disease - in most cases as a result of imbalance between bacterial symbiosis and tissues of the mouth.

Development of inflammation in periodontal plaque due to the effect, the maximum rate of growth is observed on admission sucrose, to a lesser degree of glucose and fructose. Dental plaque, moving as they grow under the gingival margin, causes irritation of tissues by microorganisms and their toxins, which further leads to damage of the epithelium of the gingival pocket and inflammation of surrounding tissues.

Violation of the integrity of the epithelium - the most important part in the development of gingivitis. As a result of enzyme action - derivatives of several species of oral microorganisms - marked depolymerization of ground substance of glycosaminoglycans, resulting in possible invasion of endotoxin in the tissue and the destruction of collagen by enzymes.

In the pathogenesis of periodontal diseases big role immunological aspects of inflammation. Prolonged contact between microbes plaque and periodontal tissues leads to autoimmune processes that may make a chain reaction, mucosal progressive changes in periodontal tissues.

Overloading of periodontal tissues, as shown by experiments and clinical observations, is a complex lesions with a predominance of inflammatory and degenerative phenomena that occurs when malocclusion, the teeth, early loss of molars and premolars, etc.

The causes of periodontal disease may be functional impairment of chewing and underutilization of the teeth or individual teeth.

Of common factors in the pathogenesis of periodontal disease is very important deficiency of vitamins C, B1, A, E, atherosclerosis, reduced reactivity with somatic diseases (blood-forming organs, gastrointestinal tract).

In the pathogenesis of periodontal disease in diabetic patients play a major role angiopathy. Because periodontitis characterized by a variety of vascular disorders, in many ways similar to diabetic angiopathy, to prove the existence of the latter in periodontitis is not easy, therefore, some authors argue that, while others deny it. Diabetic microangiopathy starting point is a violation of the carbohydrate metabolism, and metabolic determining the functional and structural integrity of the basement membrane of blood vessels.

Change the vessels in diabetes mellitus is a peculiar character: the vessel lumen completely, as a rule, does not close, but the vessel wall is affected forever. The basis of diabetic microangiopathy are plazmorrhagii processes. They boil down to basic plasma damage of the basement membrane of the microvasculature, and then cause sclerosis and hyalinosis of vessel walls. No relation to inflammation, these changes do not have. Consequently, the microcirculatory disorders are the primary character in the background of already existing transcapillary exchange, increased permeability of periodontal connective tissue structures, hypoxia, and decrease in stability of periodontal tissues to the action of unfavorable factors. Gingival microflora of the slit (enzymes of microorganisms and endotoxin) causes destructive inflammatory changes, and emerging congestion periodontal tissues even more worse.

Morphological changes in the mucosa of patients with diabetes are nonspecific, although more severe vascular type angiopathies with atrophy, sclerosis and inflammation. The presence of alopecia and diffuse inflammatory infiltrate with a mixture of plasma and mast cells, according to several authors, suggests that in diabetes, these processes are autoimmune in nature. Constant morphological feature - diffuse or focal atrophy of the epithelium with signs of parakeratosis or keratosis, epithelial hyperplasia and areas of education akantoliticheskikh protuberances, deep sinking into the underlying tissue. In places acanthosis - focal or diffuse inflammatory infiltration (lymphoid cell). Often on the oral mucosa note microdefects, surrounded by inflammatory infiltrate, sometimes they are chronic. Occur coarsening of collagen fibers, their disorderly arrangement, tears, centers condensations and loosening, atrophy of muscle tissue.

In the morphological study of mucosal atrophy and marked sclerosis, a chronic productive inflammation, development infiltration, increased number of mast, plasma cells, eosinophils, macrophages, the development of microangiopathy.

In the occurrence of inflammation of periodontal tissue changes play a role of local immunity in the oral cavity. Disturbed monocyte-macrophages phagocytosis of

microorganisms of the mouth. The content of lysozyme in the saliva of diabetic patients is reduced in half compared to normal. Is an increase in the content of immunoglobulin A and G, along with a decrease in the content in the saliva. Decreasing the amount of lysozyme and increase of IgA and IgG indicate an imbalance of non-specific (lysozyme) and specific (immunoglobulins) factors of local immunity in the oral cavity of patients with diabetes mellitus. Decreases as the number of lymphocytes in the peripheral blood T-and B-lymphocytes, and resistant T-lymphocytes.

The data indicate a significant change in hemodynamics periodontal vessels. The most significant changes are observed reoparodontogrammy in patients with prolonged and severe diabetes. They have a reduction in permeability of precapillary bed, blood flow velocity and oxygen transport to the periodontal tissues. It reduced resistance of the capillaries and increases vascular permeability.

Most often in diabetic patients develop periodontitis, while the children tooth mobility often occurs in more shallow depth gums, with the same severe form of the disease is pronounced and does not correspond to the degree of periodontal destruction. The teeth are covered with bloom, there are over-and subgingival plaque. The teeth are moved, develop secondary anomalies of their position and occlusal contacts, often further complicates the course of periodontitis. Some authors point to the periodontal pockets, of which a large number of distinguished pus and granulation often protrudes.

Also believe that changes in the gums and the bones are degenerative in nature, and inflammation associated secondary to weaken resistance. The most characteristic feature of periodontitis and severe diabetes is a degeneration of the alveolar bone resorption of interdental septa, which leads to early loss of permanent teeth. There have been rapid progression of dystrophic-inflammatory process in periodontal tissues and the frequent recurrence of periodontal abscesses.

Periodontal syndrome in diabetes mellitus characterized by its swollen, brightly colored, with cyanotic tinge desquamated gingival margin, easily bleeding on probing. There periodontal pockets with abundant purulent bloody discharge and succulent granulation. The teeth are covered with abundant soft-touch, mobile, and they are much easy to move.

Generally accepted that periodontal disease clinic for patients with diabetes harder than older patients and more disease duration. Thus, the frequency of periodontitis in diabetic patients in the group of up to 30 years was 4.7%, from 30 to 60 years - 17.3% over 60 years - 25.6%. In the old detection of diabetes up to 1 year periodontitis detected in 28% of patients over 1 year - 100%. It should be noted that the development of periodontitis greater importance is the severity of diabetes, but not its duration. According to many authors, dental indices in patients with diabetes are less favorable than in healthy people. Index of Health according to

Fedorov - Volodkina diabetic patients is 2.5 times worse than in healthy individuals. The index ranges from PMA 64.5 +1.2% to 17.68 1.12%. In healthy individuals the PMA is 14%, periodontal index (PI) ranged from 4.82 Russell to 3.0. In periodontal patients without diabetes, mean periodontal index is 2.3.

Vacuum-test is indicative of a diagnostic test for periodontal disease in diabetic patients. Thus, the heavier form of diabetes, the more slowly absorbed vacuum hematoma on gums. Determination of the resistance of the capillaries in Kulazhenkov diabetic patients shows pronounced inflammation compared with healthy individuals.

When X-ray examination of patients with periodontal disease in diabetes mellitus is characterized by diffuse osteoporosis, and "funnel", "bowl-shaped," "crater" the destruction of the bone around the teeth, mainly in the lateral parts, whereas in the anterior predominant horizontal resorption.

Changes in the organic structure of bone in diabetes due to increased function of the adrenal and thyroid glands.

In patients with diabetes develop paresthesia, taste perversion. Paresthesia of the mucous membrane occurs early in diabetes, along with its dryness. Clinical manifestations of paresthesia similar to that in other diseases, such as the nervous system, gastrointestinal tract, etc. In diabetes, burning of the mucous membrane is usually mucosal itchy skin in the genital area and other parts of the body. Taste sensitivity in diabetic patients is reduced to the sweet, salty and less to sour. Disturbances of taste sensitivity are functional in nature and are normalized after treatment.

### **Features of treatment**

Data on the treatment of periodontitis in diabetic patients are scarce. The search continues for effective methods. Some authors have sought to improve the flow of periodontitis in the application uroleksana in treatment, while others recommend the use of interstitial oxygen therapy, a third group of authors to improve the microcirculation in periodontal tissues appoint a finger massage.

Most authors use in treatment of periodontitis insulin preparations. After the removal of dental plaque and gum treatment was carried out electrophoresis of insulin 40 units from an anode 5.3 mA - 15-20 minutes (№ 10-20). Even after 3 treatments reduced swelling of gums, reduced purulent periodontal pockets, bleeding gums and reduced the burning sensation. After 7 procedures gingival pockets disappeared completely and decreased abnormal mobility of teeth 1, 2 nd degree. Comparing these results with a control group treated with traditional methods, the authors found that such changes occur only after 7, 10 and 15 days respectively.

Emphasize the need for oral hygiene in patients with diabetes mellitus for the prevention of periodontal disease, as well as complications during periodontitis.

Thus, treatment of periodontal disease in diabetic patients is often ineffective, as used in the main conservative local treatment. Surgical treatment of such patients is contraindicated because of complications caused by underlying disease, which means that combined treatment is difficult.

The study of literature for the treatment of periodontal disease in diabetic patients showed that most authors reduce all of the methods of specific treatment for rational therapy to be appointed by an endocrinologist, not taking their own participation in the integrated specific treatment of this disease.

No technique developed periodontal treatment for patients with diabetes, taking into account the specific local and general treatment, which makes it necessary to continue the search patterns of rational therapy.

Analyzing the limited data on treatment of periodontitis in diabetic patients, it should be noted that it is often ineffective, as are mainly used in standard treatment, not taking into account the specifics of the changes in the oral cavity in patients with diabetes, as well as changes in the patient with diabetes mellitus.

From our point of view is important correction of immunological and biochemical parameters of blood and oral fluid, leading to clinical and radiographic efficacy and beneficial effect on the results of local treatment. As a means of overall impact, we believe it appropriate to use the drug normaze to correct the immunological and biochemical parameters of blood and oral fluid of patients with diabetes mellitus and contributes to this background, the efficiency of the local conservative treatment.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.

6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Variants of questions:**

1. Morphological changes in the mucosa of patients with diabetes mellitus.

Answer: They are nonspecific, although more severe vascular type angiopathies with atrophy, sclerosis and inflammation. The presence of alopecia and diffuse inflammatory infiltrate with a mixture of plasma and mast cells, according to several authors, suggests that in diabetes, these processes are autoimmune in nature. Constant morphological feature - diffuse or focal atrophy of the epithelium with signs of parakeratosis or keratosis, epithelial hyperplasia and areas of education akantoliticheskikh outgrowths, deeply immersed in subiculum

2. Clinical features of diabetes?

In patients with diabetes develop paresthesia, taste perversion. A: Paresthesia of the mucous membrane occurs early in diabetes, along with its dryness. Clinical manifestations of paresthesia similar to that in other diseases, such as the nervous system, gastrointestinal tract, etc. In diabetes, burning of the mucous membrane is usually mucosal itchy skin in the genital area and other parts of the body. Taste sensitivity in diabetic patients is reduced to the sweet, salty and less to sour. Disturbances of taste sensitivity are functional in nature and are normalized after treatment.

3. Change the vessels in diabetes mellitus.

Answer: The lumen of the vessel completely, as a rule, does not close, but the vessel wall is affected forever. The basis of diabetic microangiopathy processes. They boil down to basic plasma damage of the basement membrane of the microvasculature, and then cause sclerosis and hyalinosis of vessel walls.

4. The causes of periodontal disease.

A: Functional impairment of chewing and underutilization of individual teeth or teeth, abnormal bite of the teeth, early loss of molars and premolars. Of common factors in the pathogenesis of periodontal disease is very important deficiency of

vitamins C, B1, A, E, atherosclerosis, reduced reactivity with somatic diseases (blood-forming organs, gastrointestinal tract).

## 6.2. ANALYTICAL PART

Situational problem number 1.

Patient B, aged 40, complained of an unusual type of gum, an increase in the tongue and lips. Objective: to multiple oral cavity predominantly in preshechnoy area mucosa gum shiny, swollen, enlarged, but no signs of inflammation. The oral mucosa is pale, pasty. Language compacted, thickened lips enlarged, pasty, painless on palpation. The patient responds sluggishly to others, his voice hoarse. Anamnesis revealed thyroid dysfunction.

1. Put the preliminary diagnosis. A: Thyrotoxicosis.
2. Your tactics. Answer: The direction of the patient to an endocrinologist.

Situational problem number 2

A patient aged 52 with decompensated diabetes complains of reduced taste sensitivity to sweet, salty, sour.

An objective examination of diabetes mellitus is determined by inflammation of the marginal periodontium. Marked catarrhal changes and swelling of the gingival papillae, with the formation of pathological periodontal pockets deeper than 5 mm, there is a proliferation of granulation tissue and alveolar bone destruction, often abscessed process.

1. What disease of the oral mucosa often occurs in diabetes as a complication. Answer: candidiasis.
2. The tactics of the dentist. Answer: People with diabetes need regular dental health, and therefore they should be at the dentist dispensary.

Situational problem number 3

The patient complains of a 63-year temper, irritability, mild irritability, increased fussiness, haste, distraction, reducing memory, disturbed sleep, which becomes restless, with many dreams. Reduced working capacity due to the emergence muscle weakness, fatigue, hand-shake and the whole body.

The heartbeat increases sharply during exercise. Shortness of breath, sweating, low-grade fever, increased appetite, diarrhea, thirst, a significant weight loss, exophthalmos.

In the external examination is determined by enlargement of the thyroid gland. The thyroid gland is a soft or moderately dense, lively, not soldered to the surrounding tissues. When the feeling of thyroid cancer can detect the pulse of its vessels.

1. Postavte preliminary diagnosis.  
A: Thyrotoxicosis

2. How can we change a patient from the gastrointestinal tract.

A: Changes in the gastrointestinal tract are reduced mainly to improve motor function of his, marked diarrhea, vomiting, and sometimes bouts of abdominal pain.

Situational problem № 4

Patient 37, a complaint: the mobility of the teeth breath suppuration of the gums. He suffers from severe diabetes.

1. Perform basic methods of examination

and. determination of the depth of pathological tooth pocket .\*

b. tooth mobility \*

in. ECG

2. Conduct additional research.

and. panoramic X-ray image \*

b. test for the presence of pus \*

in. definition of the index \*

, the interrogation of the patient

3. Place a diagnosis

and. ulcerative gingivitis

b. alveolysis

in. moderate periodontitis \*

Mr. fibromatosis gingival

4. indicate the multiplicity of clinical examination.

and. 1 every year

b. 1 every 3 months

in. 1 every 6 months \*

**Tests:**

1. Endocrine diseases does not apply:

A disease Vakeza \*

B. Diabetes

B. bolezen Cushing's

G. Addison bolezen

D. myxedema

2. By cytological methods include:

A. Pap - print \*

B. Fluorescent

B. Functional

G. tomography

D. Aldrich sample

3. Gingivitis associated with pregnancy

A reconstruction of hormonal balance \*

- AB lipid disorders
- V. alteration of the nervous system
- T. dysfunction of the placenta
- D. violation of the general condition

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of the oral mucosa in diabetes mellitus

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

Manual Skill: Local treatment of the oral mucosa in diabetes mellitus

List of manual skills:

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. Imposition of anti-inflammatory ointments (keratoplasty)

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze masks	0	10	20
2	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	Imposition of anti-inflammatory ointments (keratoplasty)	0	10	20
	Total:	0		100

### 10. Study Questions

1. Which group of diseases is Thyrotoxicosis?
2. The etiology of diabetes.
3. Diabetes clinic.
4. Differential diagnosis of diabetes.
5. Treatment of diabetes.
6. Prevention of diabetes mellitus.

# X SEMESTER

## LESSON № 1

**THEME: «Changes of oral mucous membrane in gastroenteric disease.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa at the gastro-intestinal diseases, and diagnosis of disease clinic to familiarize students with areas of mucosal injury, the histological changes of the mucosa.

#### Tasks:

##### *The student should know:*

- Clinical features of the oral mucosa at the gastro-intestinal diseases
- Histological changes of the oral mucosa at the gastro-intestinal diseases
- Treatment of the oral mucosa at the gastro-intestinal diseases

##### *The student should be able to:*

- Characterized by an element of destruction of gastrointestinal diseases
- Identify and distinguish the major clinical changes in the oral mucosa at the gastro-intestinal diseases
- Provide a differential diagnosis of the oral mucosa at the gastro-intestinal diseases.

### 4. MOTIVATION

Knowledge of the clinical picture and diagnosis of diseases of cardiovascular system, as well as changes in the oral mucosa in this disease are important in the practice of dentistry. The resulting a mount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry., Patological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Diseases of the gastrointestinal tract and liver are often oral mucosa changes in the oral cavity. This is due to morphofunctional similarities of the mouth and digestive tract.

Change the language. In diseases of the gastrointestinal tract most studied their impact on the state language. Kind of language, according to many researchers, may be of diagnostic value and indicate an underlying pathology of the gastrointestinal tract. The most frequently found coated tongue. The degree of severity of the raid depends on various factors. First of all, has a value of the morphological structure of the language. In the normal state or hypertrophy of the papillae, tongue coating thick, much pronounced. Atrophy of papillae, on the contrary, there is no plaque or weakly expressed.

The appearance of plaque disruption important role belongs to the normal process of keratinization and desquamation of the epithelium due to neuro-trophic disorders. Moreover, the nature of food intake, its consistency, the severity of purging process, the composition of microbial flora and oral hygiene, of course, influence this process.

Plaque (taxation) is usually found in gastritis, gastric ulcer and duodenal ulcer, gastric tumors and other diseases. In the period of acute peptic ulcer, gastritis, enterocolitis, he expressed much more and covers the entire dorsum of the tongue or predominantly rear its departments. Color grayish-white plaque, but the action pigmental bacteria, foods, drugs, and bleeding (ulcers, etc.), it takes a different color (yellow, brown, etc.).

It is important to note that during remission or during treatment of the underlying disease in varying degrees of language is cleaned of plaque and can be normal. Subjective sensations of tongue coating usually mucosal rtaovozhdaetsya. However, in the presence of a dense plaque patients experience a feeling of awkwardness, blunting of taste sensitivity. The basis of the plaque are increased, keratinized filiform papillae, food debris, bacteria, desquamated epithelial cells.

It should be remembered that the coated tongue is observed in many infectious and other diseases. In addition, a small plaque, especially in the morning, can occur in healthy people. Local treatment in these cases is not required. Necessary to determine the cause of its occurrence, sanitize your mouth, give advice on proper brushing.

The second sign of gastrointestinal disease is swelling of the tongue. Such a state language usually does not cause suffering to the patient and the doctor found on examination of the mouth. With a significant swelling of the tongue Patients report feeling uncomfortable, increasing its size, sometimes bitten tongue. When viewed from the tip, the sides of the language found prints of the teeth.

Swollen state of the language in patients with gastrointestinal diseases confirmed the positive results of blister test McClure - Aldrich, and the time of dispersal blister shortened to 10 - 12 min (normal 40 - 45 minutes). Often the blister test is positive in patients with gastric ulcer and duodenal ulcer without apparent

violations of the relief of the mucous membrane of the tongue and gives an indication of the presence of latent edema, which is an important diagnostic feature in the early stages of the disease.

Swelling of the tongue is a pathognomonic symptom of chronic lesions of the intestine (colitis, enterocolitis) and is defined in 80% of cases. Explain this state of a violation of absorptive capacity of the intestine and its barrier function. In addition, violation of value is the water balance.

In diseases of the gastrointestinal tract significant changes were observed in the papillary apparatus of tongue. Depending on the language of papillae, some authors distinguish hyperplastic glossitis, in which the papillae are well developed, tongue coated thick coating and some increased in size due to swelling. Such language occurs more frequently in patients with gastritis with high acidity. In patients with gastric ulcer and duodenal ulcer occurs hypertrophy of individual mushroom buds tongue that rise above the surrounding tissue in the form of bright red formations.

Hypoplastic glossitis is characterized by atrophy of the papillae, the absence of plaque, the size of the tongue is somewhat less than usual. Atrophy of the papillae, sometimes very strongly expressed, the tongue has a kind of "lacquered" with bright spots and stripes, reminding glossitis Moeller. Described the types of changes of tongue are found in gastritis, peptic ulcer and gastroenteritis, diseases of the biliary tract. Atrophy of the papillae of tongue causes discomfort, burning, tingling, pain when eating. The pathogenesis of these disorders is explained, along with trophic disorders, digestion of vitamins, destroying them in the gut and decreased synthesis of vitamin B<sub>12</sub>, PP, etc. Desquamation of the epithelium of the tongue in diseases of the gastrointestinal tract is common and is expressed in different ways. Usually found on the back of the tongue the bright spots of various sizes and shapes that create the plaque against the kind of superficial ulcers. Such changes are due to atrophy of the filiform papillae or enhanced desquamation.

Focal desquamation limited areas along the middle line in the back of his tongue-thirds of the form of red spots on the background of furred tongue. These changes resemble the rhombic glossitis, but distinct from the orthorhombic and deskvamate (geographical) of the tongue that appears in acute gastric ulcer and duodenal ulcer and disappear during treatment and during remission.

Focal epithelial slushivanie tongue cannot mucosal discomfort. However, most often a condition causes a burning sensation (not only in the areas of desquamation of the epithelium) in the tongue of pain when taking hot food and smoking.

Paresthesia tongue (glossalgiya) often mucosal rtaovozhdaet various diseases of the gastrointestinal tract. Often the feeling of burning, tingling may occur without any visible changes of tongue (for details, see Changes in the oral mucosa in diseases of the nervous system).

Significant violations of taste sensitivity in diseases of the gastrointestinal tract. To determine the taste sensitivity of tongue commonly used method of functional mobility, receptor tongue.

Taste receptors tongue perform the sensing function and the effector are - terminal

- link gastrolingvalnog reflex. It is known that the number of receptors language depends on the functional state of the digestive tract. Their maximum activity is observed on an empty stomach. After the meal is the demobilization of taste receptors (taste receptor mobility is reduced by half).

Ulcerative lesions of the oral mucosa are the consequence of trophic disorders in the gastro-intestinal diseases.

In this respect, are important clinical observations showing a combination of canker sores with bowel disease, as well as experimental studies on its modeling. In an experimental gastritis and enterocolitis developed primarily desquamative, and then erosive lang-vennyglossitis. Irritation of the colon is in the mouth aftopodobnye changes.

Change the color of the mucous membranes of the mouth is also a frequent clinical manifestation of diseases of the gastrointestinal tract. It is noted that the color of the mucous membranes of the mouth depends on the type, severity and limitations of the underlying disease. Catarrhal stomatitis in the form of congestion areas of bright red color or cyanosis events found for stomach ulcers, colitis, enterocolitis and other diseases. Pallor of the oral mucosa was observed in persons with gastric ulcer complicated by hemorrhage.

In the pathogenesis of the described changes in the mucous membranes of the mouth (swelling, paraesthesia, desquamation of the epithelium, etc.) It is important, along with reflex and humoral mechanisms have vitamin deficiencies, especially B vitamins, increased vascular-tissue permeability. These provisions are supported by biochemical studies, functional tests. This increases the sensitivity to histamine (histamine sharp increase in concentration in blood serum, especially in the acute stage of disease, with a simultaneous decrease in the activity gistaminazy, positive skin test for histamine), the activity of hyaluronidase, disturbed vitamin balance, etc.

Importantly, treatment of the underlying disease leads to the disappearance or reduction of the severity of dental symptoms and normalization of biochemical parameters.

Significant changes in the oral cavity for liver, biliary tract infections. When infective hepatitis, chronic hepatitis B reported a variety of changes in the oral mucosa of inflammatory-dystrophic: redness, dryness, swelling, and desquamation of the mucosal epithelium, especially expressed in the growth phase, jaundice (Botkin's disease). In addition, the characteristic -NOSTA soft palate, floor of the mouth, the appearance of hemorrhages, telangiectasia. Marked by bitterness, taste perversion (sour, metallic taste in the mouth), bleeding gums, the phenomenon of hyperesthesia of hard dental tissues.

**Used in this lesson, new teaching technologies: business game "ROUND TABLE"  
THE USE OF "ROUND TABLE".  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

**Requires:**

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2. Nomerki to draw on the number of students in the group.
3. Blank sheets of paper and pens.

**Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, FIstudents - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately is the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

**Variants of questions:**

1. What changes are observed in the papillary apparatus of the language?

In diseases of the gastrointestinal tract significant changes were observed in the papillary apparatus of language. Depending on the language of papillae, some authors distinguish hyperplastic glossitis, in which the papillae are well developed, tongue coated thick coating and some increased in size due to swelling. Such language occurs more frequently in patients with gastritis with high acidity. In patients with gastric ulcer and duodenal ulcer occurs hypertrophy of individual mushroom buds tongue that rise above the surrounding tissue in the form of bright red formations.

2. The color of the oral mucosa at the gastro-intestinal diseases?

Change the color of the mucous membranes of the mouth is also a frequent clinical manifestation of diseases of the gastrointestinal tract. It is noted that the color of the mucous membranes of the mouth depends on the type, severity and limitations of the underlying disease. Catarrhal stomatitis in the form of congestion areas of bright red color or cyanosis events found for stomach ulcers, colitis, enterocolitis and other diseases. Pallor of the oral mucosa was observed in persons with gastric ulcer complicated by hemorrhage.

### 3. Features of plaque in the gastro-intestinal diseases?

The most frequently found coated tongue. The degree of severity of the raid depends on various causes of the appearance of plaque in the important role belongs to the disturbance of the normal process of keratinization and desquamation of the epithelium due to neuro-trophic disorders. Moreover, the nature of food intake, its consistency, the severity of purging process, the composition of microbial flora and oral hygiene, of course, influence this process. Plaque (taxation) is usually found in gastritis, gastric ulcer and duodenal ulcer, gastric tumors and other diseases. In the period of acute peptic ulcer, gastritis, enterocolitis, he expressed much more and covers the entire dorsum of the tongue or predominantly rear its departments. Color grayish-white plaque, but the action pigmentobrazuyuschih bacteria, foods, drugs, and bleeding (ulcers, etc.), it takes a different color (yellow, brown, etc.).

### 4. Hypoplastic glossitis at the gastro-intestinal diseases?

Hypoplastic glossitis is characterized by atrophy of the papillae, the absence of plaque, the size of the language is somewhat less than usual. Atrophy of the papillae, sometimes very strongly expressed, the language has a kind of "lacquered" with bright spots and stripes, reminding glossitis Moeller. Described the types of changes of language are found in gastritis, peptic ulcer and gastroenteritis, diseases of the biliary tract. Atrophy of the papillae of language causes discomfort, burning, tingling, pain when eating. The pathogenesis of these disorders is explained, along with trophic disorders, digestion of vitamins, destroying them in the gut and decreased synthesis of vitamin B<sub>v</sub> B<sub>2</sub>, PP, etc.

### 5. Ulcerative lesions of the oral mucosa at the gastro-intestinal diseases?

Ulcerative lesions of the oral mucosa are the consequence of trophic disorders in the gastro-intestinal diseases.

In this respect, are important clinical observations showing a combination of canker sores with bowel disease, as well as experimental studies on its modeling. In an experimental gastritis and enterocolitis developed primarily desquamative, and then erosive lang-vennyglossitis. Irritation of the colon is in the mouth autopossible changes.

## 6. Determine the taste sensitivity?

To determine the taste sensitivity of language commonly used method of functional mobility, receptor language.

Taste receptors tongue perform the sensing function and the effector are - terminal - link gastrolingual reflex. It is known that the number of receptors language depends on the functional state of the digestive tract. Their maximum activity is observed on an empty stomach. After the meal is the demobilization of taste receptors (taste receptor mobility is reduced by half).

## 7. Pathogenesis?

In the pathogenesis of the described changes in the mucous membranes of the mouth (swelling, paraesthesia, desquamation of the epithelium, etc.) It is important, along with reflex and humoral mechanisms have vitamin deficiencies, especially B vitamins, increased vascular-tissue permeability. These provisions are supported by biochemical studies, functional tests. This increases the sensitivity to histamine (histamine sharp increase in concentration in blood serum, especially in the acute stage of disease, with a simultaneous decrease in the activity gistaminasy, positive skin test for histamine), the activity of hyaluronidase, disturbed vitamin balance, etc.

## 8. Treatment?

Importantly, treatment of the underlying disease leads to the disappearance or reduction of the severity of dental symptoms and normalization of biochemical parameters.

## 6.2. ANALYTICAL PART

### Tests:

1. gastritis with secretory insufficiency is not recommended for use:

A whole milk

B juices

In dairy products

Mr. carbohydrate diet

A cottage

2 In hypoplastic glossitis language is as follows:

A well defined nipples, tongue coated thick coating, swollen

B atrophied papillae, there are bright spots and stripes

In the papillae are atrophied, bright-red

T is reduced in size, there is no raid

A mushroom-shaped papillae hypertrophy of individual

3. A sample Mac-Clore-Aldrich is used to determine:

A. edematous state of the language

B of taste sensitivity

In the microbial landscape

D activity of lysozyme

A T-and B-lymphocytes

4 To use the AFL-epithelialization:

A. keratoplasty

B enzymes

In Antibiotics

T hormones

A antiseptics

5 When the atrophy of papillae patches on the tongue:

A missing or only weakly

B is pronounced

At present in large numbers

T loose, curdy

A dense, dark

6. Gistaglobulin enter:

A subcutaneous

B intramuscularly

In the intravenous

Mr. intraarterially

A intradermally

7 In order to use the AFL epithelialization:

A. karotolin

B terrilitin

In lincomycin

Mr. dexamethasone

A furutsilin

8. The hidden language of swelling is determined by:

A blister test Mac-Clore-Aldrich.

Used by Kulazhenkov

In the X-ray method  
Mr. fluorescent probe  
A breakdown of histamine

### **Situational tasks.**

Number 1. Patient V., aged 30, complained of the presence of a very painful AFL on the cheeks, lips and tongue, painful meal. Of history have found that these aphthae are formed in the spring and fall. Objective: to the mucous membrane of the cheeks in the left upper 5 and 6 teeth on the sides of the tongue, the mucosa of the lower lip there are some isolated aphthae 0.6 x 0.8, covered with dense fibrinous plaque sitting on the background of hyperemic mucosa, painful, myankie palpation.

1. At the gastro-intestinal disease form aphthae: a) covered with fibrinous coating and b) the color of blood and meat, and c) covered with necrotic plaque, and d) coated tvorozhestym bloom, and e) have a smooth shiny surface.
2. AFTA is: a) erosion oval, covered with fibrinous coating and b) the defect in all layers of the epithelium to the bottom and walls, c) linear defect d) shriveled exudate, and e) a dense obrozovanie.
3. For a general treatment of gastro-intestinal pathology as a means of sensitizing nespetal used: a) gistoglobine b) tsiprolete c) Lidocaine d) mepivokaine e) analgine.

Number 2. If routine inspection of oral cavity in a patient found on back of the tongue bright spots the size of 0.3 x 0.5 cm various shapes on the background of furred tongue. The patient marks a slight burning sensation. From the words of the patient, these displays much weaker in the treatment of the underlying disease - ulcers of the duodenum 12.

1. Put a prior diagnosis a) desquamative glossitis, and b) hairy tongue, and c) rhomboid glossitis, and d) folded language, and e) mikroglossy.
2. Treatment should be: a) complete and b) the total, and c) local, and d) physical therapy, and e) treatment is not required.

Number 3. Patient 45 complained of coated tongue, white coating servitor, and buckle mucosa at the level of interdigtation are imprints of the teeth. On the back and the back surface gray-brown patina. Plaque is removed, has a peculiar odor.

1. Put a prior diagnosis. (Changing the language in gastritis, enterocolitis).
2. Perform examination of the patient. (Examination of the gastro-intestinal disease).
3. Swollen state of the language are. (Blister test McClure-Oldreche).

### 6.3. The practical part

#### **Execution of manual skills. (step by step) manual skills, "Methods of examination of patients with diseases of the oral mucosa."**

Purpose: To teach students the methods of examination of patients with diseases of the oral mucosa.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of patients with diseases of the oral mucosa."

1. Wear protective equipment.
2. Conduct a visual inspection the patient.
3. inspection of the vestibule of mouth (jaws being closed)
4. Properly inspect the oral cavity.
5. Palpate the salivary glands

#### **Skill Manual methods of examination of patients with diseases of the oral mucosa.**

No	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serrated jaws)	0	10	20
4.	Properly inspect the oral cavity	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Clinic of the oral mucosa at the gastro-intestinal pathology?
2. The differential diagnosis?
3. Treatment?
4. Prevention?

## LESSON № 2

**THEME: «Changes of oral mucous membrane in cardiovascular diseases.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.
- 

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa in cardiovascular diseases and diagnosis of disease clinic to familiarize students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

##### ***The student should know:***

- Clinical features of the oral mucosa in cardiovascular diseases
- Histological changes of the oral mucosa in cardiovascular diseases
- Treatment of the oral mucosa in cardiovascular diseases

##### ***The student should be able to:***

- Characterized by an element of damage in cardiovascular disease
- Identify and distinguish the major clinical changes in the oral mucosa in cardiovascular diseases
- Provide a differential diagnosis of the oral mucosa in cardiovascular diseases

### 4. MOTIVATION

Knowledge of the clinical picture and diagnosis of diseases of cardiovascular system, as well as changes in the oral mucosa in this disease are important in the practice of dentistry. The resulting a mount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

### 5. INTERSUBJECT AND

## INTRASUBJECTCOMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry., Patalogical anatomiy, microbiology.

### 6. CONTENTOF CLASSES

#### 6.1. The theoretical part

Despite the significant prevalence of diseases of the cardiovascular system of studies on the status of the oral mucosa in these cases is extremely small. Several better known changes periodontal tissues (periodontal).

As with some other common diseases of the body, cardiovascular disease does not cause changes characteristic for this group of patients, so the material will be explained on clinical grounds lesions of the mucous membranes of the mouth, rather than individual nosology of the cardiovascular system.

The clinical picture. In cardiovascular disease, which develops as a result of rheumatic heart disease and hypertension, marked cyanosis of the mucous membrane. Such a condition may be associated with a bluish red border of lips. Patients usually do not complain or say burning, at least - a pain when eating, dry mouth.

In patients with various diseases of the cardiovascular system, blood circulation II - III degree often found severe ulcerative necrotic changes in the mucous membranes of the mouth, sores. Patients complain of shortness of breath, weakness, swelling of extremities, poor eating, pain in the mouth, the appearance of ulcers. In the mouth is usually determined by one or more ulcers on various parts of the mucous membrane (the side surface of the tongue, cheek mucosa, floor of mouth, palate, etc.). Ulcers are irregular edges; the bottom is covered with a grayish-white necrotic plaque. The absence severe inflammatory reaction in surrounding tissues. Saliva is a viscous, there is bad breath.

Due to the collapse of the necrotic tissue may be heavy bleeding. Occurrence of venous ulcers contributes to injuries caused by dental prostheses, medicinal substances (e.g, pills Validol). Some authors have carried out an analogy in such cases, degenerative changes in the oral cavity and bed sores that develop on various parts of the body due to trauma, in patients with cardiovascular disease in the stage of decompensation. Microscopic examination of sections of ulcers found a picture of chronic inflammation with signs of tissue necrosis, changes in blood vessels and nerves. Ulcer is seen as the result of trophic disorders due to heart failure. In contrast, traumatic ulcers in patients with cardiovascular and cardio-pulmonary disease are not going to heal, despite the removal of a traumatic factor and the use of means to stimulate epithelization. With long-term existence of

venous ulcers should be thinking about their possible rebirth.

In patients with essential hypertension and atherosclerosis frequently observed hemorrhagic blisters on the oral mucosa. The most frequently bubbles of different sizes are located on the soft palate, lateral surface of the tongue, cheeks, under the closure. A bubble occurs suddenly due to rupture of small vessels, often with food, increases in size, opened to expose the erosion, covered with whitish bloom, located on the background of hyperemic mucosa. Epithelialization occurs spontaneously erosion in 3-7 days, depending on size.

In smears identifies the elements of peripheral blood cells. Nicholas negative symptom.

The observed changes were first described in 1965 under the name "hematoma" and later by other authors. They should be differentiated from benign pemphigus only the oral mucosa, isolated. The hallmark is the presence of hemorrhagic content of bubbles.

The most frequent localization of changes in the soft palate, apparently, be explained by an ample blood supply to this area, the mobility of the soft palate and increased the possibility of damage to blood vessels in middle-aged and elderly with the pathology of the cardiovascular system. In the differential diagnosis should be remembered as the pemphigus, angioma.

Tropic ulcer differentiates from traumatic ulceration, necrosis of the oral mucosa in diseases of the blood of some specific processes (tuberculosis, etc.).

Treatment. It is important to use a package of measures aimed at the elimination of circulatory failure, and local symptomatic therapy. Treatment of such patients is successful only when the compensation of cardiovascular disorders in a therapeutic hospital.

Locally necessary to treat the oral cavity with antiseptic solutions, apply anesthetics and drugs that accelerate epithelization (tsigerol, propolis, an oil solution of vitamin A, E and sea buckthorn, dog rose, enzymes, etc.). When the unit ulcers to improve the ability of mucosal reactive prescribe injections of Novocain, bio-stimulants (unless contraindicated) by elements of destruction. Necessary light diet, rich in nutrients and vitamins, a thorough oral care.

In heavy, debilitated patients may develop severe effects of hypovitaminosis and fungal lesions of the mucous membranes of the mouth. Treatment is the same as in hypovitaminosis and fungal infections in patients without cardiovascular disease (vitamins, fungi static funds to the lesion, etc.).

In the treatment of bruises, or vision-vascular syndrome, attention should be paid to the underlying disease. This is especially important that the appearance of hemorrhagic blisters coincides with the rise in blood pressure, which patients do not know. On a significant change in blood vessels of the oral mucosa in these patients we found evidence strongly positive test Kulazhenkov - reduced resistance of the capillaries to the vacuum. For the normalization of vascular permeability patients prescribed ascorbic acid, vitamin E, etc. These drugs without treatment of the underlying disease do not prevent the recurrence of hemorrhagic blisters. Necessary readjustment of the mouth, including prosthetics. Local treatment

involves the application of antiseptic applications (solution of chlorine bleach, chlorhexidine, etc.) to prevent secondary infections. In addition, the use of drugs, which accelerate epithelization (oily solution of vitamin A, rosehip oil, etc.). In some cases, local treatment is not necessary, since the erosion epithelialization occurs quite quickly, spontaneously, sometimes 2 - 3 days after emergence (erosion of small size)

**Used in this lesson, new teaching technologies: business game «ROUND TABLE»**

**USE OF "ROUND TABLE".  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participates in classes each student, the teacher works with the entire group.

**Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

**Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results choosing the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Variants of questions:**

#### 1. What complaints do patients say for cardiovascular disease?

Patients complain of shortness of breath, weakness, swelling of extremities, poor eating, pain in the mouth, the appearance of ulcers. In the mouth is usually determined by one or more ulcers on various parts of the mucous membrane (the side surface of the tongue, cheek mucosa, floor of mouth, palate, etc.). Ulcers are irregular edges, the bottom is covered with a grayish-white necrotic plaque. The absence severe inflammatory reaction in surrounding tissues. Saliva is a viscous, there is bad breath.

#### 2. Differential diagnosis of oral mucosa in cardiovascular disease?

It should be differentiated from benign pemphigus only the oral mucosa, isolated. The hallmark is the presence of hemorrhagic content of bubbles. The most frequent localization of changes in the soft palate, apparently, be explained by an ample blood supply to this area, the mobility of the soft palate and increased the possibility of damage to blood vessels in middle-aged and elderly with the pathology of the cardiovascular system. In the differential diagnosis should be remembered as the pemphigus, peptic agnomen. Differentiate from traumatic ulcers, necrosis of the oral mucosa in diseases of the blood of some specific processes (tuberculosis, etc.).

#### 3. In patients with essential hypertension and atherosclerosis observed?

In patients with essential hypertension and atherosclerosis frequently observed hemorrhagic blisters on the oral mucosa. The most frequently bubbles of different sizes are located on the soft palate, lateral surface of the tongue, cheeks, under the closure. A bubble occurs suddenly due to rupture of small vessels, often with food, increases in size, opened to expose the erosion, covered with whitish bloom, located on the background of hyperemic mucosa. Epithelialization occurs spontaneously erosion in 3-7 days, depending on size.

#### 4. Cyanosis in cardiovascular disease?

In cardiovascular disease, which develops as a result of rheumatic heart disease and hypertension, marked cyanosis of the mucous membrane. Such a condition may be associated with a bluish red border of lips. Patients usually do not complain or say burning, at least - a pain when eating, dry mouth.

#### 5. What contributes to venous ulcers?

Occurrence of venous ulcers contributes to injuries caused by dental prostheses,

medicinal substances (e.g., pills Valadon). Some authors have carried out an analogy in such cases, degenerative changes in the oral cavity and bed sores that develop on various parts of the body due to trauma, in patients with cardiovascular disease in the stage of decomposition.

#### 6. Microscopic examination of ulcers -?

Microscopic examination of sections of ulcers found a picture of chronic inflammation with signs of tissue necrosis, changes in blood vessels and nerves. Ulcer is seen as the result of trophic disorders due to heart failure.

#### 7. Characteristics of ulcers in cardiovascular disease?

In the mouth is usually determined by one or more ulcers on various parts of the mucous membrane (the side surface of the tongue, cheek mucosa, floor of mouth, palate, etc.). Ulcers are irregular edges, the bottom is covered with a grayish-white necrotic plaque. There is a severe inflammatory reaction in surrounding tissues. Saliva is viscous, there is bad breath. Due to the collapse of the necrotic tissue there may be heavy bleeding.

#### 8. The tactics of the dentist in the treatment of cardio-vascular system.

It is important to use a package of measures aimed at the elimination of circulatory failure, and local symptomatic therapy. Treatment of such patients is successful only when the compensation of cardiovascular disorders is in a therapeutic hospital. Locally necessary to treat the oral cavity with antiseptic solutions, apply anesthetics and drugs that accelerate epithelization (tsigerol, propolis, an oil solution of vitamin A, E and sea buckthorn, dog rose, enzymes, etc.). When the ulcers do not improve the ability of mucosal reactivity prescribe injections of Novocain, bio-stimulants (unless contraindicated) by elements of destruction. Necessary light diet, rich in nutrients and vitamins, a thorough oral care.

In heavy, debilitated patients may develop severe effects of hypovitaminosis and fungal lesions of the mucous membranes of the mouth. Treatment is the same as in hypovitaminosis and fungal infections in patients without cardiovascular disease (vitamins, fungi static funds to the lesion, etc.). In the treatment of bruises, or vision-vascular syndrome, attention should be paid to the underlying disease. This is especially important that the appearance of hemorrhagic blisters coincides with the rise in blood pressure, which patients do not know. On a significant change in blood vessels of the oral mucosa in these patients we found evidence strongly positive test Kulazhenkov - reduced resistance of the capillaries to the vacuum. For the normalization of vascular permeability patients prescribed ascorbic acid, vitamin E, etc. These drugs without treatment of the underlying disease do not prevent the recurrence of hemorrhagic blisters. Necessary readjustment of the mouth, including prosthetics. Local treatment involves the application of antiseptic applications (solution of chlorine bleach, chlorhexidine, etc.) to prevent secondary

infections. In addition, the use of drugs, which accelerate epithelization (oily solution of vitamin A, rosehip oil, etc.).

In some cases, local treatment is not necessary, since the erosion epithelialization occurs quite quickly, spontaneously, sometimes 2 - 3 days after emergence (erosion of small size)

## 6.2. ANALYTICAL PART

Situational problem number 1.

Patient 25 years complains of bleeding, cyanosis gums, swollen Hades. History: the patient with congenital heart disease. Complaint inability to brush their teeth. Brushing your teeth is painful. Objectively: the patient is passive, weak. In the oral cavity mucous membrane of cheeks, lips, pasty, slimy gums of the upper teeth hyperemic and bluish tint, swelling. When dotragivaniizondom bleeds. In all the teeth have a soft touch.

1. What is the general pathology of the patient is suffering.(Cardio - vascular)
2. The state of oral health assessed by an index: a) the Fedorov-Volodkina b) RMA, and c) Ramfera d) keratinization d) Sandler and Stahl
3. With cardiovascular disease, periodontal treatment include: a) a general treatment, rehabilitation, treatment of periodontal b) rehabilitation, treatment of periodontal and c) a general treatment, and d) physical therapy, and e) rehabilitation and physiotherapy.

Case number 2 problem

The patient complained of a strange color language. From the words bonogo it within 3 years of taking nitroglycerine under the tongue. Of history: the patient's general condition improved edema and normal color language, and traumatizing her cheeks formed ulcers, which are long extremes. OBJECTIVE: marked pops into language, hyperplasia and fibrous papillae. Determined by the swelling of the tongue in combination with a change of color. On the buckle mucosa revealed imprints of the teeth. There are teeth with caries and its complications.

1. What is the general pathology of the patient is suffering.(Cardiovascular)
2. What kind of have the sores. (Jagged edges, the bottom is covered with whitish-servitor nekrotichesim bloom, the inflammatory response is not expressed)
3. Your tactics for treatment. (General, dental health)

Situational problem number 3

In dentistry clinic with complaints of a patient asked for the presence of bubbles and painful sores. Objectively, 37, 36 teeth - caries, 46 - pulpits, 47 -, root. On the sides of the tongue and buckle mucosa through the closing of the teeth are bubbles with expressive size 0.3h0.4 cm, as well as single erosion, covered with whitish bloom on the background of hyperemic mucosa a generalized periodontitis of

moderate severity. In the history - disease hypertension and atherosclerosis.

1. What is the general pathology of the patient is suffering.(Cardiovascular)
2. In smears - prints for cardiovascular disease determine erosion. (Elements of peripheral blood)
3. Treatment plan. (Treating the underlying disease, dental health)

### **Tests:**

1. In patients with cardiovascular disease as a rule states:

A. Cyanosis

Used long-term healing ulcers

In the presence of cells in smears - prints

Mr. ulcers heal quickly without treatment

A painless bleeding ulcers.

2. In hypertensive hemorrhagic bladder does not have:

A. cells

B red cells

In leukocytes

D blood plasma

A basophiles

3. Vascular permeability is determined by:

A sample Kulazhenkov

B sample Mac-Kenora-Aldrich

In sialography

Mr. histamine test

A fluorescent diagnostics

4. To accelerate the epithelization using:

A. keratoplasty

B enzymes

In Antibiotics

T hormones

A antiseptics

5. More often gemorrhagic bubbles appear on the mucous membranes:

A sky

B. cheeks

B. Lip

G. pharynx

D. language

6. Fungal infections of the oral mucosa being treated:

A. fungi static means

B. hormone

B. gyrostatic

G. enzymes

D. Antibiotic

7. In hypertensive hemorrhagic bladder does not have:

A. bubbles

B. red blood cells

B. Leukocytes

G. blood plasma

D. basophiles

8. The appearance of hemorrhagic blisters matches:

A rise of blood pressure

B. a decrease in blood pressure

B. increasing the pace. the body.

G. increase in white blood cell count.

D. an increase in red blood cells

### 6.3. The practical part

#### **Execution of manual skill. (step by step) manual skills "Survey methods of oral mucosa in a patient with cardio-vascular system."**

Purpose: To teach students the methods of examination of the oral mucosa in a patient with cardio-vascular system

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of the oral mucosa in a patient with cardio-vascular system .."

1. Wear protective equipment.
2. Conduct a visual inspection the patient.
3. To inspect the vestibule of the oral cavity (with serried jaws)
4. To inspect the actual oral cavity (tongue, cheeks, palate)
5. Palpate the salivary glands

**Survey methods manual skill of the oral mucosa in a patient with cardiovascular system.**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	To inspect the actual oral cavity (tongue, cheeks, palate)	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

**10. Study Questions**

1. Clinic of the oral mucosa in cardiovascular disease?
2. The differential diagnosis?
3. Treatment?
4. Prevention?

## LESSON № 3

**THEME: «Changes of oral mucous membrane in blood dyscrasias.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa in diseases of the blood and hematopoietic organs, clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

##### ***The student should know:***

- Clinical features of the oral mucosa in diseases of the blood and hematopoietic organs
- Histological changes of the oral mucosa in the oral mucosa in diseases of the blood and hematopoietic organs
  - Treatment of the oral mucosa in the oral mucosa in diseases of the blood and hematopoietic organs

##### ***The student should be able to:***

- Characterized by an element of destruction of the oral mucosa in diseases of the blood and hematopoietic organs
- Identify and distinguish the major clinical changes in the oral mucosa in the oral mucosa in diseases of the blood and hematopoietic organs
- Provide a differential diagnosis of the oral mucosa in diseases of the blood and hematopoietic organs

### 4. MOTIVATION

Knowledge of the clinical picture and diagnosis of diseases of blood and blood-forming organs, as well as changes in the oral mucosa in this disease are important in the practice of dentistry. The resulting amount of

theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry, Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Diseases of the blood is often mucosal changes of oral mucosa lesions such We observed in 82 out of 152 patients with various leukemia's: the GV Osechensky (1961), changes in the oral cavity to varying degrees of severity, in some stage of the disease observed in all patients with leukemia.

KN Flour transport (1955) argue that changes in the mucous membranes of the mouth most often develops in acute leukemia. However, they may be the first symptoms of blood, which sees the patient. In this regard, the dentist is often the first to see these patients and should be well oriented in this pathology.

Leukemia - malignant disease of the blood, resulting from progressive cellular hyperplasia in the hemopoietic organs, when the processes of cell division (proliferation) is dominated by the processes of maturation (differentiation). In the subsequent pathological foci are formed in different hematopoietic organs, including the oral mucosa.

Blood cells in leukemia lose their normal morphological structure and physiological functions and acquire new properties. Depending on the degree of anaplasia of tumor cells and blood flow nature of leukemia are divided into acute and chronic.

It should be noted difficulties in diagnosis of leukemia in those cases where a change, even expressed, defined only in the oral cavity. According to LT Kalugina (1962), 270 patients with acute leukemia prior to admission to hospital MONICA in hospitals of Moscow region were placed 49 different diagnoses, with some different doctors put patients 5-6, 8 intermediate, even, 'milestone' diagnoses. Thus, the diagnosis of "dental disease" was placed 38 patients, abscess - 8 amphotosis - 6, osteomyelitis jaw - 6, tumor jaw (sarcoma) - 2, 16 patients removed teeth, made of cut and the folds of the transition sequestromy. LA Lutsik and DP Lutsik (1964) indicate that out of 26 leukemia patients admitted to the dental clinic, hypertrophic gingivitis was diagnosed in 7 people, odontogenic osteomyelitis - in 7, postekstraktsionnoe bleeding - in 2, phlegmonous adenitis of

the submandibular- in 1 patient, periodontal disease, a 5-stomatitis in 2, sinusitis, odontogenic in 1, a tumor of the mandible - in 1.

Diagnostic errors due to the fact that the initial period changes of the oral mucosa in leukemia is studied insufficiently. It is considered that begins suddenly with acute leukemia. However, as the literature data (LA Lutsik and DP Lutsik, N. Popova, etc.), long-term illness may be asymptomatic, manifesting itself in the form of an inflammatory or degenerative process, including the oral cavity. Acute leukemia - a form of the disease, in which the maturation of white blood cells stop at the earliest stages of the blast. The defeat of the oral mucosa observed in 90.9% of patients with acute leukemia.

According to N. Popova (1969) of 87 patients with acute leukemia, only 8 had no change in the oral cavity, 24 had necrosis of the mucous membrane, 29 - hemorrhage, 26 patients - combining changes in the form of hemorrhages and necrosis.

In the diagnosis of acute leukemia important role belongs to the general symptoms (malaise, fatigue, low-grade fever, intestinal, uterine, nasal bleeding, etc.). On examination, pallor of the skin, pallor, pastoznost, vulnerability and easy bleeding of the oral mucosa, hemorrhages on the gums, cheeks (especially through the closing of the teeth), palate, tongue. Hematomas and hemorrhages can be observed both in the mucosa and skin.

Very often, bleeding gums is the first clinical sign of acute leukemia. Gums then become friable, bleed, ulcerate. Hyperplasia and infiltration of leukemic cells is gum so large that the crowns of teeth is almost fully covered with loose, bleeding, in some places expression of the shaft, preventing the patient is and talk (Y. Ashmarin). Frequently observed gingival ulceration and necrosis (Fig. 37), especially after tooth extraction [Dunaevsky VA, 1953, and Chernoff, KI, 1955].

Often necrosis detected on the tonsils, in region and other parts of the mouth. Feature of the necrotic process in acute leukemia is its tendency to spread to adjacent areas of the mucosa. As a result, there may be extensive ulceration with irregular outlines, covered with a gray necrotic plaque. Reactive changes around the ulcer are missing or weak.

In the presence of necrotic changes in the oral cavity patients complain of sharp pain and difficulty in eating, swallowing, putrid fetid breath, general weakness, dizziness, headache. In the early development of ulcerative necrotic changes can be observed hyper salivation, and then the amount of saliva is reduced, which is associated with degenerative processes in the salivary glands.

A. Ashmarin (1972), who observed the ulcer-necrotic lesions of the oral mucosa in 19 patients with leukemia, said that this process was localized mainly in the tonsils, gums, cheeks, and started with a hemorrhagic syndrome. In these patients, swelling of gum occurred, they became loose, juicy on the gums, as well as in other parts of the mouth, ulceration appeared. The resulting ulcer size less than 1-2-penny coin, were covered with a whitish-gray coating, which is exposed by removing the bottom of the bleeding. Teeth often become loose, they had to be removed, usually mucosal copious and prolonged bleeding. Ashmarin noted that often when necrotizing process of change and language: increases and becomes

swollen, covered with dark brown patina, it also raises the ulcer. Postnikov, AL (1966) indicates that prolonged use of antibiotics in the treatment of leukemia leads to the formation of ulcer-necrotic changes and Candida lesions on the mucous membrane. In addition, the appearance in these patients recurrent AFL.

Causes necrotic processes in the oral mucosa in acute leukemia is unclear. It is believed that necrosis can occur as a result of the collapse of leukemic infiltrates in areas of extensive hemorrhage, and because of the neuro-trophic disorders in the tissues and the violation of the body's defenses.

VS Turusov (1956, 1957) has shown that usually ulcer-necrotic lesions of the mucous membranes in patients with acute leukemia develops in place of large leukemic infiltrates or hemorrhage. An important point to cause the development of necrosis, is the effect of external factors, especially microbes. The lymph nodes in acute leukemia increased significantly - up to 0.5-1 cm, they are soft, painless. In some cases, acute leukemia may occur with the formation of specific leukemic infiltrates expressed in skin and oral mucosa.

As a result of the formation of infiltrates in the gums is a sharp deformation of the gingival margin, palate, etc. This condition is often diagnosed as hypertrophic gingivitis. Leukemic infiltrates may ulcerate, which often leads to bleeding. A. Amsharn (1972) described four cases of hypertrophic gingivitis, which, along with common symptoms was one of the first signs of acute leukemia. Initially, there was a painful swelling of gums, makes it difficult to chew. Increases, gingival papillae were coming to the crown of teeth, looming over them, and gradually shutting them down, while there was a strong bleeding gums. This lesion usually keeps the gums firmly and difficult to treat, even when jointly administered by the patient and dentist hematologist.

Histologically defined necrosis of the oral mucosa of varying depth - from the death of only the surface layers of the epithelium to extensive lesions involving the entire thickness of the epithelium of the mucous membrane itself, and even the sub mucosa. The surrounding area of necrosis of tissue infiltrated with lymph, plasma, and other reticular cells. In some areas of cellular infiltrates powerful as a substitute for connective tissue. There are marked hyperemia of vessels, as well as changes in bone desorption in the form of interdental septa. FW Hapash (1968) indicates that the degree of desorption depends not on the prescription process, and on its intensity and mucosal body.

The manifestations of acute leukemia in the mucosa should be differentiated from hypertrophic gingivitis other etiology, necrotizing stomatitis, Vincent, hypovitaminosis C, toxic heavy metal salts and other crucial in the diagnosis of leukemia are the results of blood tests.

For treatment of acute leukemia used cytotoxic agents, corticosteroids, broad spectrum antibiotics. It should be borne in mind that cytotoxic agents can cause complications such as erosive and ulcerative lesions of the oral mucosa.

Local therapy consists of regular oral antiseptic and analgesic agents.

P. Popov recommends that before a meal to handle the oral cavity of 0.5-1% hydrogen peroxide or 0.5% solution of bleach, and then for 10 min to carry out the bath with a 1% solution of Novocain on the 2.5% solution of

hexamethylenetetramine.

Chronic leukemia's are distinguished from acute relatively more favorable and long-term trend. In chronic leukemia oral mucosa is affected less frequently than in acute forms. According to N. Popova, who observed 128 patients with chronic forms of leukemia, changes in the oral cavity were observed in 42% of patients with necrotic processes were present in 14, hemorrhage - in 27 and combined changes - at 13.

Chronic leukemia, depending on the nature of the defeat of blood-forming organs are divided into myeloproliferative (myeloid leukemia) and lymph proliferative (lymphocytic) form. Chronic myelogenous leukemia in two stages: a benign, continued for several years, and malignant (terminal), which lasts 3-6 months. The first stage often begins without marked clinical symptoms, then a neutrophilic leukocytosis with a shift to promyelocytes and occasional blast cells. In the second stage and the first time in blast crisis blasts in the blood of many forms (myeloblasts, hematocytoblast), there has been rapid growth in the number of leukocytes in the blood. As the progression of leukemia develop anemia, thrombocytopenia, mucosal hemorrhages rtaovozhdayuschayasya. Chronic lymphocytic leukemia usually develops in middle-aged and elderly, characterized by a long benign course and a significant increase in the number of leukocytes in the blood (including lymphocytes predominate). Leukemia lymphocytic infiltrates are localized in the bone marrow, lymph nodes, spleen, and liver.

The initial period of chronic leukemia often goes unnoticed for the patient. The only complaint may be swollen lymph nodes. Emerging from a number of patients in acute changes in the oral mucosa are of the nature of hemorrhage, necrotizing lesions and tumor Pumping According Ashmarin Y. (1972), hemorrhage in these patients are given Punctuate purport, areas of necrosis are rarely more lentils. During the terminal flare frequently observed extensive ulcerous-necrotic lesions of the mucous membranes of the mouth-.

According Bluefarb (1960), the specific lesions of the oral mucosa in the form of nodes and infiltrates observed in 3.22% of patients with chronic lymphocytic leukemia. The resulting knots and knots have consistency, mobile, cyanotic color, rise above the surrounding mucosa. The process of the mucosa may develop independently or spread to adjacent areas of the skin. At the same sky, tongue, tonsils, usually affected alone (Y. Ashmarin). This process develops slowly. Histological, the submucosallayer are determined by swelling, moderate to hyperemia, infiltration of lymphoid cells. May be necrosis of the mucosa. By F. X. Hawash (1965), in this form there is hyperplasia of the lymphoid apparatus of the mouth, plethora vascular sub mucosa, occasional hemorrhage.

Agranulocytosis - a syndrome characterized by a significant decrease in the number or absence of neutrophils in the peripheral blood. On the mechanism of agranulocytosis may be myelotoxic and immune. Myelotoxicagranulocytosis occurs during the suppression of growth predated granulocytes in the bone marrow as a result of effects on the body ionizing radiation, chemical compounds with cytotoxic properties (benzene, anticancer drugs). Immune agranulocytosis

develops as a result of the accelerated death of granulocytes under the influence of antibodies. Of drugs can cause agranulocytosis Amidopyrine, phenylbutazone, phenacetin, Analgin, Barbamyl, sulfonamides, streptomycin, PAS, cytostatics, etc. A special place is agranulocytosis in systemic lesions of hematopoietic system.

Agranulocytosis, usually manifests itself primarily by changes in the oral cavity, which causes the patient to treat early disease to the dentist. According to G. Chirwa (1968), changes in the mucous membranes of the oral cavity and pharynx found in 65.4% of patients with agranulocytosis and toxic origin in 91.3% of patients with immune agranulocytosis.

Myelotoxic agranulocytosis develops gradually. Start immune agranulocytosis medical sharp. The disease begins with a rise in body temperature, the appearance of pain on swallowing, bad breath, bleeding gums. Marked hemorrhage, formed foci of necrosis of the oral mucosa, most often on the tonsils. Necrotizing process may spread to the esophagus. Often the necrotic process in the mucosa combined with candidiasis. Lymph nodes are enlarged.

Histologically detected foci of necrosis, which begins at the mucosal surface and propagates into the interior up to the muscular layer and the bone. Necrosis area reactivity character, because there is no IPT dramatically weakened cell reaction, due to the absence of granulocytes. Rarely severe vascular reaction. Punctate poor bone marrow cellular elements, there are no mature neutrophils, many lymphocytes. In the submandibular lymph nodes define the foci of hyperemia and hemorrhage, sometimes with areas of necrosis.

The differential diagnosis should be made with necrotizing stomatitis Vincent, and other blood diseases. Diagnosis is based on history, clinical presentation, results of the study of peripheral blood and bone marrow punctate.

The general treatment is carried out under the supervision of a therapist and haematologist primarily include blood transfusions, removal of the etiological facts, etc. Local treatment includes antiseptic oral analgesia, prescriptions, stimulating epithelization. Thrombocytopenic purport (syn.: Verlgofa disease) is associated with the maturation of megakaryocytes and a violation of weak ability to produce platelets. The disease is characterized by a significant decrease in platelet counts in peripheral blood. Clinically distinguish between acute and chronic relapsing forms of chronic disease Verlgofa.

Symptomatic thrombocytopenia is observed not only in disease Verlgofa, the etiology is unknown, but also in allergic conditions, infections, radiation sickness, medication intoxication, etc.

The main clinical symptom of the disease are bleeding into the skin, mucous membranes, and bleeding from the nose, gums, etc., arising spontaneously or under the influence of minor trauma. Observed hemorrhages in serous membranes, retina, and other departments of the eye, brain. As a result of significant blood loss can develop hemorrhagic anemia.

A characteristic feature of the disease is thrombocytopenia. In remission platelet count increases, but usually does not reach the standards. Reducing the number of platelets leads to an increase in bleeding time to 10 minutes or more (normally 3-4 minutes). Symptom bundle (Kopchalovskogo-tiller-LEED) is

sharply positive. Acute forms are less common, occur with a high body temperature and profuse bleeding, including the kidney.

When thrombocytopenia caution in dental and other procedures. They should be in the hospital after appropriate training.

Erythremia (sip.: polycythemia, Vakeza disease) - a disease of hematopoietic system, characterized by an increase in the number of erythrocytes and hemoglobin in a unit volume of blood along with an increase in the mass of blood. Erythremia occurs predominantly between the ages of 40-60 years, If ye men. The disease begins imperceptibly to the patient. The color of the skin and mucous membranes, which become dark cherry color, which is due to an increased content of reduced hemoglobin in the capillaries. Often there is bleeding gums. There are paresthesia in the oral mucous membranes due to increased blood flow and vascular neurovascular disorders.

Diagnosis is based on a sharp increase in the number of red blood cells. Usually at the same time increasing the level of hemoglobin and increases blood viscosity.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.

10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Variants of questions:**

1. First name of the oral mucosa in acute leukemia?

On examination, pallor of the skin, pallor, pastoznost, vulnerability and easy bleeding of the oral mucosa, hemorrhages on the gums, cheeks (especially through the closing of the teeth), palate, tongue. Hematomas and hemorrhages can be observed both in the mucosa and skin.

Very often, bleeding gums is the first clinical sign of acute leukemia. Gums then become friable, bleed, ulcerate. Hyperplasia and infiltration of leukemic cells is gum so large that the crowns of teeth is almost fully covered with loose, bleeding, in some places expression of the shaft, preventing the patient is and talk (Y. Ashmarin). Frequently observed gingival ulceration and necrosis (Fig. 37), especially after tooth extraction [Dunaevsky VA, 1953, and Chernoff, KI, 1955].

Often necrosis detected on the tonsils, in region and other parts of the mouth. Feature of the necrotic process in acute leukemia is its tendency to spread to adjacent areas of the mucosa. As a result, there may be extensive ulceration with irregular outlines, covered with a gray necrotic plaque. Reactive changes around the ulcer are missing or weak.

In the presence of necrotic changes in the oral cavity patients complain of sharp pain and difficulty in eating, swallowing, putrid fetid breath, general weakness, dizziness, headache. In the early development of ulcerative necrotic changes can be observed hyper salivation, and then the amount of saliva is reduced, which is associated with degenerative processes in the salivary glands.

2. Differential diagnosis of acute leukemia.

The manifestations of acute leukemia in the mucosa should be differentiated from hypertrophic gingivitis other etiology, necrotizing stomatitis, Vincent, hypovitaminosis C, toxic heavy metal salts and other crucial in the diagnosis of leukemia are the results of blood tests.

3. Histological changes in agranulocytosis.

Histologically detected foci of necrosis, which begins at the mucosal surface and propagates into the interior up to the muscular layer and the bone. Necrosis area reactivity character, because there is no IPT dramatically weakened cell reaction, due to the absence of granulocytes. Rarely severe vascular reaction. Punctate poor bone marrow cellular elements, there are no mature neutrophils, many lymphocytes. In the submandibular lymph nodes define the foci of hyperemia and hemorrhage, sometimes with areas of necrosis.

4 differs from acute chronic leukemia ..

Chronic leukemia's are distinguished from acute relatively more favorable and long-term trend. In chronic leukemia oral mucosa is affected less frequently than in acute forms. According to N. Popova, who observed 128 patients with chronic forms of leukemia, changes in the oral cavity were observed in 42% of patients with necrotic processes were present in 14, hemorrhage - in 27 and combined changes - at 13.

5. Histological changes in chronic lymphocytic leukemia.

Histological, the submucosal layer are determined by swelling, moderate to hyperemia, infiltration of lymphoid cells. May be necrosis of the mucosa. By F. X. Hawash (1965), in this form there is hyperplasia of the lymphoid apparatus of the mouth, plethora vascular sub mucosa, occasional hemorrhage.

6. What is erythremia.

Erythremia (syn.: polycythemia, Vakeza disease) - a disease of hematopoietic system, characterized by an increase in the number of erythrocytes and hemoglobin in a unit volume of blood along with an increase in the mass of blood. Erythremia occurs predominantly between the ages of 40-60 years, If ye men. The disease begins imperceptibly to the patient. The color of the skin and mucous membranes, which become dark cherry color, which is due to an increased content of reduced hemoglobin in the capillaries. Often there is bleeding gums. There are paresthesia in the oral mucous membranes due to increased blood flow and vascular neurovascular disorders.

7. What is thrombocytopenic purport.

Thrombocytopenic purport (syn.: Verlgofa disease) is associated with the maturation of megakaryocytes and a violation of weak ability to produce platelets. The disease is characterized by a significant decrease in platelet counts in peripheral blood. Clinically distinguish between acute and chronic relapsing forms of chronic disease Verlgofa.

8. What is the tactic of dentist and treatment of blood diseases.

The general treatment is carried out under the supervision of a therapist and haematologist primarily include blood transfusions, removal of the etiological facts, etc. Local treatment includes antisepticoral analgesia, prescriptions, stimulating epithelization.

## **6.2. ANALYTICAL PART**

Situational problem number 1.

The patient appealed complaint of severe pains in the gums, painful eating, bleeding from the gums, weakness, lethargy.

On-no: the patient's skin color ashy gray, slimy gums hyperemic, on the edge of the gums is necrotizing eagle gray, gum bleeding. Soft plaque on the teeth.

1. For the diagnosis of leukemia in the blood should be found: a) the leukemic blast cells, and b) red blood cells, and c) eosinophils, and d) platelets, and e) stick-nuclear leucocytes
2. For a general treatment of leukemia are used: a) cytostatics, and b) antibiotic, c) stimulants, and d) physical therapy, and e) non-steroidal anti-inflammatory drugs.
3. When hyperplastic syndrome does not show up: a) a painful swelling of the lymph nodes. b) a painless increase nodes) gum hyperplasia d) enlargement of the spleen, and e) an increase in the tonsils.

Situational problem number 2

The patient complains of painful ulcers in the presence of lips, tongue and buckle mucosa. Not a pleasant smell iota. General state of weakness, lethargy, body temperature 38.8 C. On-no: the patient of average weight, in the oral cavity mucous membrane in the lips, tongue and sides of the buckle mucosa have ulcerative ulcers covered with necrotic plaque, sharply painful with characteristic odor of necrotic lesions. Of history, common disease - agranulatsitoz.

1. When agranulatsitoze the blood: a) number leucocytes sharply increase b) the number of leucocytes sharply increases, and c) an increase in platelet count, and d) increase in blood clotting, and e) an increase in blood viscosity.
2. In the treatment of oral mucosa with agranulocytosis should be applied: a) an antiseptic, and b) antibiotic, c) cattery, and d) biostimulants irradiation.
3. Suspicion of the disease the patient's blood should be sent to a) a hematologist, and b) a cardiologist, and c) a neurologist, and d) immunologist, and e) a dentist

Situational problem number 3

. The patient complained of spontaneous bleeding from the gums and other parts of the oral mucosa, severe bleeding after the slightest injury. In the history of the patient's disease Verlgofa (idiopathic thrombocytopenia).

1. When illness Verlgofa in the blood: a) a sharp decline in the number of trombocytes b) an increase in platelet count, and c) reduction of white blood cells, and d) an increase in white blood cells, and e) the presence of young forms of leucocytes
2. with the disease Verlgofa observed: a) positive tourniquet Sipta b) shortening of

bleeding time, and c) the rapid formation of a blood clot, and d) the absence of bleeding, and e) a positive histamine test.

3. In the treatment of disease Verlgofa not appoint: a) the physiotherapy, b) blood transfusion, and c) infusion of plasma, and d) platelets, and e) corticosteroids.

### Tests:

1. Signs of anemia:

- A taste perversion
- B. aphthae on the tongue
- B. burning tongue
- G. hemorrhages on the mucous
- D. swelling of the soft palate

2. Constant feature in the oral cavity in anemia is:

- A tooth imprints on her cheeks through their closure
- B. aphthous lesions in the language
- B. Erosion of the polygonal shape
- G. bright redness of the mucous membrane
- D. there is no right answer

3. The characteristic form of the mucous membrane - white, with grayish-green hue - is characteristic:

- A juvenile choruses
- B. Addison's pernicious anemia, Bireme's
- V. essential iron-deficiency anemia
- G. acute leukemia
- D. chronic myelogenous leukemia

4. Classic pernicious anemia syndrome is:

- A. Gunter glossitis
- B. "raspberry" tongue
- B. pathos lesions in the eyes
- H. Rosenthal syndrome Melkersona-
- D. All the answers are correct.

5. The symptoms of glossitis Gunter:

- A. aphthae in the frenulum of tongue
- B. bright-red patches of inflammation
- B. aphthae on tongue
- G. prints of teeth on the tongue
- D. hyperplasia papillae language

6. Eliminate the symptoms do not occur in acute leukemia:

- A. infiltration of the gums
- B. atrophy language
- B. varnished tongue
- G. hyperplastic changes of lips
- D. separation of gum mucosa

7. What medications are used to irrigate the oral cavity in agranulocytosis:

- A. 0.02% furatsillina
- B. 0.1% lactate ethacridine
- B. 70% alcohol
- G. astringents
- J. Antibiotics

7. A characteristic feature observed in the oral cavity in folic acid deficiency anemia:

- A. imprints of teeth on the tongue and oral mucosa
- B. varnished tongue
- B. aphthae on tongue
- G. Multiple caries
- D. absence of plaque in the language

### 6.3. The practical part

#### Execution of manual skill. (step by step)

Manual skill "Methods of examination of the oral mucosa inpatients with blood diseases."

Purpose: To teach students the methods of examination of the oral mucosa in patients with blood diseases

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematicpatient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of the oral mucosa in patients with CVD."

1. Wear protective equipment.

2. Conduct a visual inspection the patient.
3. To inspect the vestibule of the oral cavity (with serried jaws)
4. To inspect the actual oral cavity (tongue, cheeks, palate)
5. Palpate the salivary glands

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2.	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	To inspect the actual oral cavity (tongue, cheeks, palate)	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Clinic of the oral mucosa in diseases of the blood and blood-forming organs?
2. The differential diagnosis?
3. Treatment?
4. Prevention?

## LESSON № 4

**THEME: «Oral lesions associated with organic diseases of the nervous system. Clinics.Diagnostics.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.
- 

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa with nervous disorders clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucous membrane

#### **Tasks:**

#### ***The student should know:***

- Clinical features of the oral mucosa with neurological disorders
- Treatment

#### ***The student should be able to:***

- Describe the elements of destruction of nervous disorders
- Identify the histological changes in neurological disorders
- Provide a differential diagnosis
- Antiseptic
- Application of antibacterial agents in an element of defeat
- Application of the element defeat
- When using a physical method of treatment to properly connect the device

### 4. MOTIVATION

Knowledge of different techniques for neurological disorders is important in the prevention and treatment of neurological disorders. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The

resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases Pathological anatomy, microbiology, physiotherapy, neurology, psychiatry .

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

This category includes damage to the oral mucosa that develops under the influence of neural factors such as stress and depression, mental illness.

#### Taste disturbance

Taste disturbance (dysgeusia), or a disorder of taste sensitivity may be manifested in its complete loss, lowering, raising and perversion. This applies to all types of taste sensitivity (for sweet, salty, sour, bitter), or only some of them. Taste disturbance may occur in trauma, lesions of the oral mucosa, beriberi, diseases of the gastrointestinal tract, peripheral nerves, central nervous system, with nervousness.

Taste buds are located primarily in the mucosa of the tongue, so any process (viral infection, allergic glossitis, multiforme erythematous, exudative, Nye, radiation damage, avitaminosis A and B, Jorgensen's syndrome), oral mucosal desquamation reinforced or temporary loss of epithelium in the tongue may lead to a decrease or loss of taste. In such cases, taste sensitivity is restored to the extent of regeneration buds of the tongue. With a strong irritation and extensive lesions leukoplakia tongue taste is also often reduced because of the difficult access to the flavoring taste buds.

Sour feeling may occur in patients with symptoms of galvanism. The emergence of bad taste in the mouth, can cause gingivitis, periodontitis, chronic tonsillitis, periodontitis. This false taste perversion, because taste sensitivity does not change, but there is a source of taste in the mouth. Feeling bitter, sour, you may receive when gastritis.

A unilateral breach of taste to anterior two-thirds of the tongue indicates a peripheral nerve injury - drum string lingual, facial nerves. Taste fibers almost its

entire length go together with other nerve fibers, so that simultaneously with the defeat of the peripheral gustatory nerves are usually violated other types of innervation, which allows to determine the place of destruction (e.g., lingual nerve injury violated all kinds of surface sensitivity of language). It is extremely rare to observe an isolated lesion drum string mucosal decrease or perversion of taste, such as chronic obits. Taste disturbance in the posterior third of tongue, soft palate shows the defeat of the glossopharyngeal nerve.

Full two-way, less one-sided loss of taste sensitivity occurs when organic lesions of the central nervous system (brain tumors, neurosyphilis). Taste perversion or loss are common in hysteria.

Treatment. Depending on the cause of taste disturbance treatment carries a dentist or other doctors - a neurologist, internist.

### Violation of salivation

There are two type of violation of salivation: hyper salivation (increased salivation) and sialoschisis (reduced salivation), with its extreme degree - xerostomia (dry mouth).

#### Hypersalivation.

This violation does not affect the status of the oral mucosa and in moderate limits is not noticed by patients.

Acute inflammation of the mucous membranes of the mouth mucosa unconditioned reflex increase in saliva due to a sharp irritation that should recognize the positive protective reaction of the organism. Hypersalivation may occur as a consequence of direct stimulation of the secretory cells of the salivary glands of mercury, iodine in contact with these substances in the body.

The long sharp hyper salivation (increased saliva in 2 - 3 times) was observed in some organic lesions of the autonomic centers - parkinsonism, pseudo bulbar palsy, post-stroke hemiplegia. Hypersalivation in parkinsonism may be associated with impaired swallowing. This leads to a flow of saliva from the mouth, constant spitting. Increased vagal tone (vago-tonia) of various etiologies, worm infestation and lead to an increase in salivation.

Often, the dentist has to deal with false hyper salivation, when patients complain of excessive salivation, and in objective this study is not confirmed. This phenomenon occurs in neurosis, mucous membrane obsessive-compulsive disorder, as well as in violation of the act of swallowing in the case of organic lesions of the central nervous system. Patients with hyper salivation, in addition to the dentist, should be examined on the testimony of a neurologist and internist.

Hypersalivation in acute inflammatory processes in the mouth - the phenomenon of protective and treatment is not needed. Treatment of hyper salivation other

etiologies should be aimed at addressing the underlying disease that caused the condition.

Temporary reduction of saliva can be achieved through the use of drugs atropine.

Sialoschisis.

Sialoschisis, and especially its most extreme manifestation - cause xerostomia in patients with a feeling of dryness in the mouth, difficulty in eating and speaking, pain from an acute and solid food, burning sensation, the roughness of the membrane. Sialoschisis often associated with dryness of other mucous membranes and skin.

Objectively, the mucous membrane slightly moistened or dry, dull. Saliva is small, it is frothy or non-existent. The active growth of microorganisms because of the protective action of saliva off leads to inflammation of the mucous membrane injury in the meal, the appearance of erosions, ulcers. In patients with long-term increases sialoschisis plaque, there is a multiple dental caries.

Salivation is reduced in elderly and senile age, diabetes, collagen sis, radiation damage, hypo-and avitaminosis A, B, E, giposideroze syndrome (Plummer - Vinson), after surgical removal of the large salivary glands with bilateral chronic parotitis. The most severe dryness of mouth occurs in patients with Jorgen's syndrome.

Increased sympathetic tone may also lead to sialoschisis, such as hyperthyroidism, in menopause, and neurotic conditions. Xerostomia as a temporary phenomenon can occur in acute infectious diseases and poisoning (botulism), after taking certain drugs (e.g. atropine).

The syndrome is also often abnormal bite mucosal rtaovozhdaetsya decrease salivation.

In people with impaired nasal breathing (polyps, deviated septum), continually forced to breathe through the mouth, dryness of the mouth are usually caused by not lowering salivation, and increased evaporation of fluid from the oral cavity (false sialoschisis). Dryness in the mouth only at night may be due to sleep with my mouth open because of the weakness of the muscles that raise the lower jaw, which happens more often in the elderly.

If the reason sialoschisis identified, treatment is the elimination or mitigation of the causes of its actions. Necessary readjustment of the mouth, including prosthetics. Recommended vitamin (vitamins A, B, B2, B6, B12, C, E), in testimony - the sex hormones.

A good effect is produced by electroplating of major salivary glands. As a means

of sympathetic successfully using 0.5 - 1% solution of it subcutaneously, orally or by electrophoresis on a daily basis during the month, 1% solution of pilocarpine hydrochloride (4 drops 1 - 2 times per day), vitamin A and iodine into the .

Locally, we recommend the use of anti-inflammatory and emollients (borax in glycerol, lysozyme, peach, sunflower oil, etc.).

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Application Control and questions for review:**

1. Types of violations of salivation. Answer: hypersalivation (increased salivation) and sialoschesis (reduced salivation), with its extreme degree - xerostomia (dry mouth).
2. Taste disturbance may arise. Answer: The trauma lesions of the oral mucosa, beriberi, diseases of the gastrointestinal tract, peripheral nerves, central nervous system, with nervousness.
3. Hypersalivation may occur. Answer: as a consequence of direct stimulation of the secretory cells of the salivary glands of mercury, iodine in contact with these substances in the body.
4. Sialoschesis. the complaint. Reply dryness in the mouth, difficulty in eating and speaking, pain from an acute and solid food, burning sensation, the roughness of the membrane.

### **6.2. ANALYTICAL PART**

Situational problem number 1.

The patient turned 36 years old to the dentist complaining of dryness in the mouth, difficulty in eating and speaking, pain from an acute and solid food, burning sensation, the roughness of the membrane. When viewed objectively mucosa slightly moist or dry, dull. Saliva is small, it is frothy or non-existent.

A. Put the diagnosis:

- a) thermal burn
- b) sialoschesis
- c) radiation sickness,
- g) galvanism,
- e) chemical burn;

B. sialoschesis reason may be:

- a) hot food
- b) electrocoagulation
- c) the use of NASA
- g) Ray
- d) work at a chemical plant;

The correct answer is b :1-.2-g.

### **TESTS**

1. Taste disturbance can occur when:

- A) traumatic lesions of the mucous membranes of the mouth
- B) beriberi
- B) diseases of the gastrointestinal tract
- D) neuroses.

D) Illness Itsengo Cushing's

2. For hipertenzing not characterized by:

- A slightly moist mucous membranes or dry
- B) hyperemia
- B) the appearance of erosions, ulcers.
- D) multiple dentalcaries.
- D) glossitis

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of oral mucosa with neurological disorders.

**Indications:** Diagnosis of diseases of nervous disorders.

**Equipment:** safety glasses, rubber gloves, a mask, the thematicpatient (volunteer), tools for exploring the oral cavity

**Manual Skill:** Local treatment of the oral mucosa in diabetes mellitus

**List of manual skills:**

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. Imposition of anti-inflammatory ointments (keratoplasty)

1. Wearing safety goggles, rubber gloves, gauze mask
2. Application of anesthesia failure.
3. Antiseptic treatment.
4. Application of antibacterial agents in an element of defeat.
5. Application funds.

**Execution of manual skill. (in steps)**

**"Topical treatment of the lesion of the oral mucosa."**

№	Followingthesteps.	Stepisnot performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves and Wearing a gauze mask.	0	10	20

2	Application anesthesia: application of 10% lidocaine spray on a cotton ball, fixing it to the affected area	0	10	20
3.	Antiseptic treatment of 3% p-rum of hydrogen peroxide	0	10	20
4.	Application of antibiotics: application of an ointment link on a cotton ball, fixing it to the affected area	0	10	20
5.	Application: application solkoserila on a cotton ball and fixing it on the affected area	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Causes of acute physical damage of the oral mucosa.
2. Causes of chronic physical damage of the oral mucosa.
3. Clinical manifestations.
4. Factors causing sialoschisis
5. Treatment

**LESSON № 5**  
**THEME: «Glossalgia. Clinics. Diagnostics. Therapy.».**

**1. PLACE OF CLASSES, EQUIPMENT**

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.

**2. DURATION OF STUDY SUBJECTS**

Hours - 331 minutes

**3. SESSION PURPOSE**

To study changes in the oral mucosa in glossalgii, clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

**Tasks:**

***The student should know:***

- Clinical features at glossalgii
- Histological changes of the oral mucosa in glossalgii
- Treatment

***The student should be able to:***

- Describe the elements of the defeat at glossalgii
- Identify the histological changes in glossalgii
- Provide a differential diagnosis

**4. MOTIVATION**

Knowledge of different techniques for psychogenic factors in the development of glossalgii is important in the prevention and treatment of nervous disorders. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, path physiology, physiology, propaedeutics internal medicine, oral surgery, prosthodontics, pediatric dentistry, Pathophysiology, STI diseases Pathological anatomy, microbiology, physiotherapy, neurology, psychiatry .

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Glossalgia (syn.: glossodiniya, paresthesia language) a pathological condition characterized by unpleasant or painful sensations in the language without any visible changes in his. ES Yavorskaya (1973) and others believe and various diseases. Currently, all the more widespread term "stomalgiya", which indicates that the unpleasant sensations are localized not only in language but also in other parts of the oral mucosa. The term "glossalgia" was first mentioned in literature in 1837 (Veisse), and the definition of "glossodiniya" gave Oppenheim in 1896, we consider these forms as synonyms.

The etiology and pathogenesis glossalgii so far not fully understood. Among the factors contributing to the emergence of paresthesia in the language and in other parts of the mouth, produce chronic disease of the gastrointestinal tract (Platonov, EE, 1951, Weiss, SI, 1965, etc.), vitamin B12 deficiency (Borowski E. W., Barysheva YD, 1957), endocrine disorders - a manifestation of paresthesia and menopause (Makienko MP, 1957 KA Orlov, 1963, etc.). There is clear evidence that patients suffering from glossalgia, are expressed in nervous and mental changes: irritability, poor sleep, etc. A. Zhukov (1965) found a functional disorder of the nervous system and asthenic condition, 40% of patients, organic lesions nervous system - in 45%, vascular disease - 24%, gastro-intestinal tract - 10% of patients glossalgia. KA Orlov (1963) and TT Shkolyar (1965) indicate the role of psychogenic factors in the development of glossalgii.

VA Smirnov (1976) presents data that glossalgia 19% of patients due to visceral disease (gastritis, duodenal ulcer, hepatitis, etc.), 18% and has a psychogenic genesis of neurotic, 15% associated with the peculiarities oral health (dental disease, metal implants, crowns, etc.), 12% is due to vascular disease, 7% - endocrine disorders (especially menopausal), 6% - inflammation of the paranasal sinuses, 6% - infectious exposures, and 5% - allergic reactions, 4% - basal cerebral causes (auto-intoxication, face injury, etc.), 3% of patients the cause glossalgii not been established. The author points out that glossalgia proceeds most painful and difficult to treat when it has a psychogenic genesis and neurotic.

Along with this particular role in the emergence and strengthening of paresthesia and pain in the language belongs to local stimuli (sharp edges of the teeth, broken

teeth, tartar, defective dentures, single teeth, etc.). VY Kurland et al. (1974) and others indicate that the cause may be glossalgii dissimilar metals in the mouth, galvanism, the violation of the bite.

Costen (1934), AI Betelman and BN Bynin (1951), LR Rubin (1959), VA Khvatova and others indicate that the pain in the facial area, temporomandibular jaw joint, nasal and ear pain, burning tongue, lips, palate, dry mouth, etc. are due to reduction in the height of the occlusion. Loss of posterior teeth and wear of the teeth leads to a displacement of the articular head injury was displaced backwards and upwards articular head section of the mucous membrane, situated at the posterior pole of the articular disc.

Chorda tympani injured by shifting the articular head. VY Kurland and VA Khvatova (1974) when examining 300 patients with neurological symptoms found in 72 (23%) of complaints link with impaired dentition. Dominated by complaints of burning in the language of pain and crackling in the temporo-mandibular joint. Some people pointed out that priotkryvanie mouth, laying between the tooth rows of cotton or gauze, pressing his fingertips on the front wall of the ear canal can reduce the discomfort.

VA Smirnov (1976) explains the patients' complaints mainly abnormal neurovascular bundle passing through the slit glazerovu. Glossalgiya occurs 3-3.5 times more often in women than in men, mainly in people over the age of 30 years. The disease may begin gradually and the patient may not always accurately indicate the time of occurrence of pain. However, patients are usually associated with trauma beginning glossalgii tongue tooth prosthesis, the instrument during treatment or preparation of teeth, some disease occurs after a tooth extraction or other surgery in the maxillofacial region, medication, etc.

When glossalgii often observed crawling type of burning, rawness, stinging, tingling, numbness or discomfort. Sometimes patients indicate a feeling that "the language sprinkled with pepper," language as "scalded." In some patients, along with parenthesis marked pain, sometimes very intense.

Localized pain and discomfort often at the tip (anterior third) and the lateral surface, at least on the back and root (posterior third) language. Sometimes the paresthesia spread to the lips, the sky, the tongue, pharynx, esophagus, neck area. Pain does not have clear boundaries and are intermittent. They usually disappear during a meal in the morning discomfort may be absent or mild, worse in the evening or during prolonged conversation, nervous excitement. Disease with varying degrees of intensity can last for years, and the symptoms may disappear for a certain period (usually during the holidays). Recovery without treatment is rare.

When glossalgii patients often complain of dryness in the mouth. VVMikheev and LR Rubin (1966) consider it one of the most constant symptoms glossalgii. However, this issue diskutabelen. So, Smirnov (1976) notes that in some patients glossalgii marked hyper salivation.

A number of patients simultaneously suffering glossalgieycancerophobia Worried discomfort, patients treated tongue in the mirror, fixing his attention to anatomical structures or minor changes, in particular, pay attention to the lymphoid tissue at

the base of the tongue or valikoobraznye nipples, taking them for growth. Glossalgiya usually not mucosal rtaovozhdaetsya morphological changes of the language. Typically, oral mucosa, even in the presence of complaints of dryness, is well moistened. However, in some cases there are signs sialoschisis: mucosa flushed, shiny and viscous saliva, frothy. Sometimes there is swelling of the tongue, which is determined by the presence of fingerprints on it teeth.

VE Grechko et al. (1974) indicate that cappiliarscope study of microcirculation in the mucosa of the anterior two thirds of language in glossalgii revealed slowing of blood flow until it is completely stopped and the occurrence of hemorrhage in the precapillary tissue. According to their data in patients glossalgia significantly reduced (less distorted) the functional mobility of taste receptors of the language. In the study of bioelectrical brain activity in these patients revealed diffuse changes are manifested in the form of disruption and resynchronization of alpha activity. Based on these data, the authors suggest that one of the reasons for the occurrence of parenthesis and pain, it is the excitement of sensitive conductors of relevance to the innervation of the tongue and mouth.

Glossalgiyu must be differentiated from trigeminal neuralgia. Neuralgia, unlike glossalgii pains are paroxysmal in nature, there is a "Trigger" area. Pain can be triggered by talking, eating. If you are glossalgii discomfort during eating. Unlike glossalgii with lingual nerve neuritis, along with pain and paresthesia observed violation of the sensitivity and increased pain when speaking and eating, palpation of the tongue is painful.

Paresthesia may occur when dissimilar metals in the mouth or steel solder. In this case, patients may complain of taste of metal, there is an increase in micro-mouth. Removing the bridge leads to the elimination of unpleasant sensations. Burning and dryness in the mouth can occur in case of intolerance of acrylic plastic. For the diagnosis are important clinical history that the occurrence of unpleasant sensations associated with the use of a prosthesis of this plastic. Removing the implant leads to a significant improvement. In addition, if you are allergic to the material of the prosthesis, prosthetic field mucosa hyperemic, edematous, it may be on the bleeding and erosion.

In the differential diagnosis of desquamative glossitis glossalgii and has a value and that when glossitis burning and pain aggravated by eating, and when glossalgii pain disappear. In addition, during the inspection reveals areas of desquamation, while at glossalgii these changes are absent.

Treatment should be made taking into account the factors contributing to the emergence of glossalgii. In this regard, provided the normalization of the functions of organs and body systems. Treatment administered in view of the doctor's recommendations appropriate profile, state of the gastrointestinal tract, endocrine and other disorders. Given that the majority of persons suffering glossalgia, are expressed and psychogenic neurotic manifestations, patients designate one of the following drugs: seduces 0,005 g, 0,005 g Selenium, trioxazine 0.3 g, 0.025 g of chlorpromazine 2-3 times daily for 3-4 weeks. A good effect is a multivitamin that also nominated for 3-4 weeks. For the initial manifestations of the disease give a good effect of the blockade (the type of mandibular anesthesia) of vitamin B1, with

Novocain (10-12 injections).

When gastritis and atrophy of the papillae expressed phenomena of language a treatment with vitamin B12 (10-12 injections). With a decrease in saliva flow into the prescribed 3% solution of potassium iodide (1 tablespoon 3 times a day). Good results were obtained in the treatment of glossalgii electrophoresis of sodium ions. The active electrode is placed upon the language (12-16 procedures). Several authors have successfully applied electric sleep, hypnosis.

Necessary readjustment of the mouth, as any irritant supports the focus of excitation. Produce fillings, dental plaque is removed and all damaged and mobile teeth. Important role belongs to orthopedic treatment with the exact height of the restoration of occlusion. Should pay particular attention to the presence in the mouth of dissimilar metals. Replacement prostheses often leads to the elimination of unpleasant sensations. To eliminate the pain and parenthesis in the language you can use benzocaine (Anaesthesini 1 g; Glycerini 10 g), 0.5% solution trimekaina, bath with citral (1% solution in peach oil).

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for

which the maximum score is placed.

11. Discussion is given on 15 minutes.

12. Students receive points for the answers from the theoretical part of the rating classes.

13. The resulting score of students in failing to take into account the estimates for the current session.

14. Work remains resident teachers

15. The analysis of responses.

### **Variants of questions:**

1. Symptoms glossalgii? Discomfort, burning, tingling, mostly in the area of the tip or base of the tongue, usually one-half. These sensations occur in the language of eating, usually in the evening. Often, dry mouth. Sometimes there is paresthesia lips and other parts of the oral mucosa and skin. The disease may mucosal mouth. Distinct changes in the mucous membrane of the language there. The disease onset is often associated with intervention in the oral cavity (tooth extractions, fillings, dentures, etc.). Sometimes the complaints come after identifying patients with any anatomical features of the language. On examination conducted allergic skin tests with 1% solution of potassium chromate in carriers of dentures made of steel, with 1% gold chloride solution for dentures or fillings made of gold. When using dentures made of plastic to exclude sensitization to acrylic plastics.

2. Treatment glossalgii? strictly individualized on the basis of examination of the patient, often with an endocrinologist, a neurologist, gynecologist and other specialists. An indispensable condition for a node-elimination. e factors, irritating language, removing allergens from the mouth in the form of dentures and fillings. Prescribe drugs that increase salivation (1% solution of pilocarpine 4-5 drops 1-2 times a day), psychotropic drugs - andesine, diazepam (seduksen), etc. What is important is psychotherapy. When localization of sensations re-Novocain blockade. Useful vitamins C, B1, B2, B12, A, PP. Physical methods: sinusoidal modulated currents on the cervical sympathetic nodes, galvanic collar by Shcherbakov.

3. Reasons glossalgii.

A: The etiology and pathogenesis glossalgii so far not fully understood. Among the factors contributing to the emergence of parenthesis in the language and in other parts of the mouth, produce chronic disease of the gastrointestinal tract, vitamin B12 deficiency, endocrine disorders - a manifestation of paresthesia and menopause. There is clear evidence that patients suffering from glossalgia, are expressed in nervous and mental changes: irritability, poor sleep, etc. The reason may be glossalgii dissimilar metals in the mouth, galvanism, the violation of the bite.

nasal and ear pain, burning tongue, lips, palate, dry mouth, etc. are due to reduction in the height of the occlusion.

## 6.2. ANALYTICAL PART

Situational problem number 1

Sick '33 complained of a burning sensation, tingling tongue, which disappear when eating. and intensified during the conversation IR evening. Previously suffered an injury of the cervical vertebrae @ objective changes in language there. Mucous pale pink color @ Normal moisture. Oral cavity sanitized

Put preliminary diagnosis:

\* @ Glossalgiya

@ Neuralgia

@ Neuritis

@ Odontogenic pain

@ Tumor

Glossalgiyu not differentiate with:

@ \* Inflammation

Pain in the @ re  $\neg$  result of injuries

@ Neuralgia

@ Neuritis

@ Odontogenic pain

For the treatment does not apply stomalgii

\* @ Antibiotics

@ Novocain-ins blockade

@ 1% solution of thiamine bromide

@ Perorate iron

@ 1% solution of citral

4. state language in glossalgii:

@ \* In the norm

@ Intensified desquamation

@ Atrophy of the epithelium

@ Furred tongue

5. The mental status with no characteristic stomalgii

@ Lack of attention to manifestations in the mouth \*

@  $\neg$  excitable increase dependence

@ Disturbingly suspicious character

@ Sindh  $\neg$  rum

@ syndrome

Situational problem number 2

The patient asked the dentist complaining of a burning sensation and a feeling of awkwardness in the language @ discomfort intensified after the conversation, the excitement in the evening. These phenomena have begun after staging a removable denture patient suffers cancer phobia @  $\neg$  it. During the meal complaints disappear. Found insignificant Patriotic  $\neg$  soon of language, taxation, individual soschkov hypertrophy, varicose veins-in language @

1. Put preliminary diagnosis:

A glossalgia \*

@ Neuralgia

@ Neuritis

@ Odontogenic pain

@ Tumor

2. Glossalgia does not occur when:

@ In a healthy person \*

@ Neuroses

@ Gastrointestinal tract lesions

@ Vascular lesions

@ Endocrine disorders

3. Glossalgia does not occur when:

\* @ Pulpitis

@ Arachnoiditis

@ Disorders of cerebral circulation

@ Schizophrenia

@ Neurosyphilis

4. Glossalgia more likely to suffer:

@ Women \*

@ Children

Men @

Teens @ @. all

5. Glossalgia not cure:

@ therapy \*

@ Vitamin

@ Novocaine block

@ 1% p-rum citral

@ Iron supplementation

Situational problem number 3

The patient complains of 30 years, poor sleep, pain, burning sensation on the tip and sides of the tongue, which subsides when eating. Language slightly coated.

1. Put the preliminary diagnosis:

\* @ Glossalgia

@ Neuralgia

@ Neuritis

@ Odontogenic pain

@ Tumor

2. Isklyuchite word which is not synonymous:

\* @ Glossitis

@ Glossalgia

@ Glossidinia

@ Paresthesia language

@ Glossopiroz

General symptoms in glossalgii and neurology:

Feeling of burning, while discomfort

@ Presence of trigger zones

@ Pain along the nerve

@ Sharp attacks of pain

@ Pains are localized in the area  $\rightarrow$  are appropriate for the branch of the trigeminal nerve system

Glossalgia not cure:

\* @ Antibiotics

@ Iron supplementation

@ Physiotherapy

@ Sedatives

@ Vitamin therapy

Glossalgiyu treat:

\* @ Procaine blockade

@ Corticosteroids

@ Antibiotic

@ Surgically

@ Cauterizing agents

### Tests:

1. Factors contributing to the occurrence of parenthesis in the language:

A) Chronic disease of the gastrointestinal tract

B) a deficiency of vitamin B12

B) endocrine disorders

C), neuron-psychiatric changes:

D) All of the answers correct

2. Characteristic symptoms glossalgii:

A) Unpleasant sensations or the tip of the tongue

B) The tip of a burning sensation of the tongue

B) a tingling sensation in the tip of the tongue or

C) Bad Breath

3. Treatment glossalgii

A) the normalization of the functions of organs and body systems.

B)), dental health

B) a multivitamin C, B1, B2, B12, A, PP

C) Blockade (by type of mandibular anesthesia) of vitamin B1, with Novocain (10-12 injections).

D) All of the answers correct

### 6.3. The practical part

**Purpose:** To teach students of the local treatment of the oral mucosa in glossalgii

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

Manual Skill: Local treatment of the oral mucosa in glossalgii

List of manual skills:

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. Imposition of anti-inflammatory ointments (keratoplasty)

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full.
1.	Wearing safety goggles, rubber gloves, gauze masks	0	10	20
2.	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment.	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	Imposition of anti-inflammatory ointments (keratoplasty)	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Which group of diseases is Thyrotoxicosis?
2. The etiology of diabetes.
3. Diabetes clinic.
4. Differential diagnosis of diabetes.
5. Treatment of diabetes.
6. Prevention of diabetes mellitus.

## LESSON № 6

### THEME: «Pemphigus. Clinics. Diagnostics. Therapy.».

#### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

#### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

#### 3. SESSION PURPOSE

- To familiarize students with pemphigus
- To teach students the methods of diagnosis of pemphigus.
- To introduce the etiological factors pemphigus.
- To teach the students ability to characterize the clinical picture of pemphigus.
- Train the differential diagnosis.
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of pemphigus.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- Complaints of the patient with pemphigus.
- Which is caused by infection of pemphigus.
- Clinical forms of pemphigus.
- Stage of the pathological process.
- The most characteristic clinical signs.
- Treatment strategy.
- The tactics of a dentist.

##### ***The student should be able to do:***

- Identify ways of pemphigus.
- Diagnose pemphigus forms.
- To make a treatment plan.
- Anesthesia ointment of destruction.
- Antiseptic.
- Application of drugs to the elements of defeat.
- Measures of precaution and prevention.

## 4. MOTIVATION

Knowledge of the clinical diagnosis of pemphigus and is important in dentistry. The resulting body of theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry., Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

True (acantholytic) pemphigus

1. vulgar pemphigus
2. vegetating pemphigus
3. seborrhea (erythematous) or pemphigus syndrome Senir-Asher.
4. Vulgar pemphigus bullous dermatitis-heavy,

people suffer 40-60y.o., mostly women. In the mouth on the site of the defeat of the epithelium becomes cloudy in the center of the hearth erosion occurs, quickly spread to the periphery. Often erosion "naked", without deposit, or easily removable fibrous plaque. Rashes appear on the intact mucosa.

Bubbles may be formed with a clear content later, then the bubble burst tire. In the mouth they are placed throughout the OGAN. May be affected and the mucosa of the nose, eyes, genitalia, larynx, pharynx, esophagus.

On the skin, they are located on the back, chest, arms, legs, neck, sometimes on the face.

I. phase of the disease: the mucous membrane of small bubbles without phenomena. With their opening formed erosion.

I. Phase - big bubbles, and their opening is formed erosion. They often merge to form a bright red surface, bleeding, painful. Swollen tongue. Nicholas positive symptom. Hypersalivation. Sharp pain. With the localization of the red border of lips covered with erosion of the yellow-brown or bloody crusts. The general condition was extremely grave. Cachexia.

II. Phase - epithelialization. Acute remitting processes. Nikolsky symptom in

lesions is determined with difficulty.

1. If you take tweezers and pull the tire bladder, it is detachment of the film in apparently healthy mucous membranes or skin.
2. Rubbing unchanged appearance of the skin or mucous membrane between the sites leads to the rapid formation of bubbles or erosion.
3. If you rub the areas located far from the lesions, it may also be moving the upper layers of the epithelium.

Vegetating pemphigus - begins with the defeat of OGAN is localized on the cheeks, tongue, palate and mouth corners. Formed bright - red soft vegetative against erosive surface after removing bubbles. On the face of vegetation covered by unconsolidated muddy - brown crusts. In the corners of his mouth - bleeding cracks. On the affected skin appear hyperemic or bubbles are small, with a ton of tire. Location: axillae, umbilicus, inguinal folds, genitals, and pass assignments. Nicholas positive symptom.

Leaf-pemphigus - bubbles appear on the scalp and trunk, but may be affected and other areas of the skin. Bubbles are located in the superficial layers of the epithelium, so at the opening of the bubbles in the fluid is shrinking thin strips - like dry leaves. Typically, the bubbles are formed and revealed large erosive surface. SOPT involved in the process dramatically.

Seborrheic pemphigus - erythematous lesions on the background of oily seborrhea form thin yellow crusts, easily torn away without the subsequent formation of atrophic areas. On the skin marked redness, peeling, resembling seborrheic eczema. It occurs in OGAN.

Patogistology

Intraepithelial blister formation as a result of acantholysis, ie intercellular bridges of melting in the lower layer of thorny cells of this layer are disconnected and there are gaps between them, and then the bubbles. The bottom of such bubbles, and is lined with erosion cells. They are round and smaller than normal cells shipovidnogo layer, a large nucleus relative to the entire cell. Nucleus with 1-6 loose and lighter nucleotides.

Differential diagnosis.

- Pemphigoid
- Erythema multiforme
- Drug allergy
- Bullous form of lichen ruberplanus
- Dermatitis herpetiformis
- Cystic epidermolysis.

Treatment for common

Limiting salt, carbohydrates, and fats. Prednisolone 50-80mg-mut, further reducing the daily dose of 5 mg every 5 days and then a constant daily dose of 10-15 mg.

Calcium: Calcium lactate, calcium glycerophosphate, calcium glaciata 0.5 three times a day.

B vitamins, ascorbic acid.

Anabolic hormones

Cytostaticssendimon (metatreksat) 35-50 mg 2 weeks

- Prospidinum 1 day a week

- Heparin of 10,000 IU of interior, mish 2 times a day 15-20 days

Local:

1. dental health

2. Rational prosthetics

3. Trays of anesthetics before eating, deodorizing and sanitizing after the meal.

4. Applications corticosteroid ointment 3-4 times a day, alternating with ointment.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
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3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers

## 15. The analysis of responses.

### **Control questions to check for:**

1. What is the etiopathogenesis of the disease?
2. Classification of pemphigus
3. Clinic pemphigus
4. Clinical diagnostic methods pemphigus
5. Laboratory methods for diagnosing pemphigus
6. Differential diagnosis of pemphigus
7. Treatment
8. Forecast

### **Answers**

1. There are several theories: viral, endocrine - metabolic, toxic
  2. Classification: vulgar, leaf-shaped, vegetative and seborrhea.
  3. Elements: bubble - erosion - the crust. Location: on the skin and are accompanied
  4. Nicholas positive symptom:
    - If you take tweezers and pull the tire bladder, it is detachment of the film in apparently healthy mucous membranes or skin.
    - rubbing unchanged appearance of the skin or mucous membrane between the sites leads to the rapid formation of bubbles or erosion.
    - If you rub the areas located far from the lesions, it may also be moving the upper layers of the epithelium.
  5. Cytology revealed cell "Ttsanka." The blood found in large quantities of chloride 700-750 mg
  6. pemphigus. Allergies to medications, vesicle form. Lichen planes, bullous form.
    7. Limiting salt, carbohydrates, and fats. Prednisolone 50-80mg-mut, further reducing the daily dose of 5 mg every 5 days and then a constant daily dose of 10-15 mg.  
Calcium: Calcium lactate, Foamex, calcium glycerophosphate, calcium glaciare 0.5 three times a day.  
B vitamins, ascorbic acid.  
Anabolic hormones  
Cytostaticssendimon (metatreksat) 35-50 mg 2 weeks  
- Prospidinum 1 day a week  
- Heparin of 10,000 IU of interior, mysch 2 times a day 15-20 days
- Local:
- a. dental health
  - b. Rational prosthetics
  - c. Trays of anesthetics before eating, deodorizing and sanitizing after the meal.
  - d. Applications corticosteroid ointment 3-4 times a day, alternating with ointment.
8. In severe adverse weather

## 6.2. ANALYTICAL PART

### Situational problem number 1

The patient complains of 52 years, the emergence of painful erosions on his cheek and bubbles on the skin. A month ago, said blisters on the skin. Deteriorated general condition, weakness, fatigue, weight loss are appeared. Medication denies. Objective: to the right buccal mucosa in the lower 6 and 7 teeth erosion of red oblong shape, irregular shapes, sizes 2.0x0.7cm mucosa in the circle is not changed. Marked on the skin of some NIS bloody crusts, the skin in a circle is not changed. On the skin of the abdomen on the left of two pear-shaped bladder 1.0x1.0 with serous contents. The skin in the circle is not changed. With tweezers entrainment of the upper layer of the epithelium is the epithelium detachment in apparently healthy mucosa. Palpation regional lymph nodes are small, mobile, and painless. Conduct clinical and laboratory methods of investigation and diagnosis.

A: The symptom of Nicholas positive cytology found cells Ttsanka. The blood found in large numbers to 700-750 mg of chlorides

Diagnosis: A True pemphigus

### Situational problem number 2

The patient is 40 years, complained of painful erosions in the mouth, severe pain when eating and talking and. Patient notes the general weakness, fatigue, loss of appetite. On examination: erosion of the mucous membrane of the gums, transitional folds and cheeks. Erosion at the edges of fragments of bubbles. Spend the differential diagnosis and put the diagnosis and plan treatment.

A:

Differential diagnosis is carried out with pemphigoid, MEE, drug allergies, bullous form of the CPL, dermatitis herpetiformis, epidermolysis cystic.

Diagnosis: A True pemphigus

Treatment: Corticosteroids in the shock dose, with a gradual reduction and bringing to the support of individual daily doz. Naznachayutcytostatics, vitamin C, B, potassium chloride, Palanquin.

### Situational problem number 3

Patient 60 complained of rashes in the mouth, on the skin of the abdomen and chest pain during talking and eating, severe weakness, loss of appetite. Sick for 2 years with a temporary improvement. When viewed in the oral cavity observed extensive erosion, sharply painful, slightly covered with fibrous plaque. On the skin of the chest and abdomen are fused and isolated bubbles, erosion, crusting. The body temperature of patients in the normal range. Spend the differential diagnosis of similar diseases. Place a diagnosis.

A:

Differential diagnosis: bullous form of lichen ruberplanus, dermatitis

herpetiformis, epidermolysis cystic.

Diagnosis: A True pemphigus

Situational problem № 4

Patient 50 years, turned to the clinic with a diagnosis of pemphigus vulgar.

Make a plan of treatment.

A:

Treatment:

Total: Corticosteroids in the shock dose, with a gradual reduction and bringing to the support of individual daily doz. Naznachayutcytostatics, vitamin C, B, potassium chloride, Panangin. Antibiotics and sulfonamides, calcium chloride 10% w /.

Local:

- dental health
- Rational prosthetics
- Baths of anesthesia before eating, deodorant and disinfectant after meals.
- Applications corticosteroid ointment 3-4 times a day in alternation with ointment.

Situational problem number 5

The patient, appealed to the clinic with a diagnosis of Pemphigus. Conduct the survey methods.

A: Cytological study. Laboratory study

### Tests

1) The vulgar pemphigus refers to:

- A. Medicine \*
- B. preconcert
- B. beriberi
- G. Infectious Diseases
- D. blood diseases

2) For the vulgar pemphigus is characterized by:

- A positive Nikolsky sign \*
- B. symptom of "apple jelly"
- B. Positive test vesicle
- G. positivity with the probes
- D. positive serological reactions

3) The primary morphological element in pemphigus

- A bubble of intraepithelial \*
- B. naphtha
- B. papule
- G. plaque

D. bladder sub epithelial

4) The most effective group of drugs in the treatment of pemphigus:

- A. Corticosteroids \*
- B. anabolic
- B. cytostatics
- G. Antibiotics
- D. enzymes

5) Differential diagnosis of pemphigus is conducted:

- A. pemphigoid \*
- B. drug allergy
- B. MEE
- G. chronic herpes
- D. necrotizing stomatitis Vincent

# 6 .. Pemphigus is

- @ Disease, manifested by not inflamed skin and mucous
- @ Characteristically blistering
- @ Develops as a result of acantholysis
- @ Without adequate treatment extends to the entire skin
- @ Has a malignant course
- @ All the answers are correct \*

# 7 .. Specify the types of pemphigus affecting the mucosa

- @ True \*
- \* @ False
- \* @ Akantoliticheskaya

@ En

@ All the answers are correct

# 8 ..to true pemphigus is

- @ Vulgar, vegetating \*
- @ Leaf-shaped, seborrhea \*
- @ Plaque, erosive
- @ Vulgar, erosive
- @ Plaque, seborrhea

9. With pemphigus, you must assign a consultation and treatment by:

- A dermatologist \*
- B. oncologist
- B. virologist
- G. haematologist
- D. Gastroenterologist

### 6.3. The practical part

#### Manual skill number 8

Conducting tests Nikolsky (A - version).

Purpose: To diagnose pemphigus to test the patient Nicholas

Indication: Diagnosing pemphigus.

Equipment: Dental chair, drill, dentist kit, medical preparations, cotton rolls, anesthetic, antiseptic.

#### Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Irrigation of the oral cavity with a weak solution of antiseptic.	0	10	20
2	Definition of abnormality in the oral mucosa	0	10	20
3.	The application of the pathological focus for 2-3 minutes. Anesthetic gel.	0	10	20
4.	Gently pull the edges with tweezers tire bladder.	0	10	20
5.	Evaluate the work sample.	0	10	20
	Total:	0	50	100

#### Manual skill number 9

Nicholas sample (B-variant).

Purpose: To diagnose pemphigus in a patient sample to Nicholas

Indication: The diagnosis of pemphigus.

Equipment: dental chair, drill, dentist kit, medical preparations, cotton rolls, anesthetic, antiseptic.

#### Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Irrigation of the oral cavity with a weak	0	10	20

	solution of antiseptic.			
2	Identify the affected area with oral mucosa.	0	10	20
3.	The application of the pathological focus anesthetic gel	0	10	20
4.	Blunt end tweezers irritate deleted area of mucous, or between two bubbles	0	10	20
5.	Observe how the bubble will appear, to assess	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. What is the etiopathogenesis of the disease?
2. classification of pemphigus
3. Clinic Akantoliticheskaya pemphigus
4. Clinical diagnostic methods pemphigus
5. Differential diagnosis of pemphigus
6. treatment
7. Forecast

**LESSON № 7**  
**THEME: «Pemphigoid. Clinics. Diagnostics. Therapy.».**

**1. PLACE OF CLASSES, EQUIPMENT**

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

**2. DURATION OF STUDY SUBJECTS**

Hours - 331 minutes

**3. SESSION PURPOSE**

- To familiarize students with the disease pemphigoid
- To teach students the methods of diagnosis of pemphigoid.
- To introduce the etiological factors pemphigoid.
- To teach the students ability to characterize the clinical picture of pemphigoid.
- Train the differential diagnosis.
- Train the choice of treatment.
- To familiarize students with preventive measures for the prevention of pemphigoid.
- Teach them the proper execution of manual skills step by step.

**Tasks:**

***The student should know:***

- Complaints of the patient with pemphigoid.
- what infection caused by pemphigoid.
- Clinical forms of pemphigoid.
- Stage of the pathological process.
- The most characteristic clinical signs.
- Treatment strategy.
- The tactics of a dentist.

***The student should be able to do:***

- Identify ways of pemphigus.
- Diagnose pemphigus forms.
- To make a treatment plan.
- Anesthesia ointment of destruction.
- Antiseptic.
- Application of drugs to the elements of defeat.
- Measures of precaution and prevention.

## 4. MOTIVATION

Knowledge of the clinical diagnosis of pemphigoid and is important in dentistry. The resulting body of theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry, Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

In this group of diseases includes outwardly similar to pemphigus diseases: ♦ Lever bullous pemphigoid, pemphigus, or actually (by ND Sheklakovu) cicatrizing pemphigoid, or mucous-bullous dermatitis sinehialny, pemphigus eye; ♦ benign pemphigus of the mucous membrane only oral mouth (on BM Pskov). The etiology of pemphigoid is unclear. All types of pemphigoid are characterized by the absence of acantholysis in the epithelial cells, sub epithelial location of the bubbles, marked inflammation, lack of acantholysis cells, a negative symptom of Nicholas. Can be positive symptom perifocal subepithelial detachment. Pemphigoid benign flows, the general condition of patients suffering a little, the prognosis for life is good.

Bullous pemphigoid (pemphigoidbullosa).

The disease usually occurs in people over 50 years. Affected skin and mucous membranes of the mouth, nose and genitals. Approximately 10% of cases the disease begins to damage the mucous membrane of-mouth. The clinical picture. Characterized by the formation of sub epithelial blisters in the mouth. Against the background of edematous and hyper-peremirovannoy oral mucosa appear tense blisters with serous or hemorrhagic content with a diameter of 5-20 mm. They persist for several hours, sometimes days, then in their place are formed erosion, covered with fibrinous deposit. Unlike totally pemphigus, erosion 10-15 days without scarring or atrophy, but may occur again after some time. Favored the localization of blisters in pemphigus are bound hard and soft palate, cheeks. The disease lasts for months and years, can spontaneously

disappear. Sometimes the disease process may be localized to the gingiva. At the same time the mucous membrane of the gingival margin to the vestibular surface hyperemic, swollen, bleeding Symptom Nicholas in this case, it is often positive, but cells are not detected. The disease persistence and long-term. Pathologic anatomy. Histologically defined by sub epithelial bubbles. In his own record mucosal edema and marked inflammatory infiltration differential diagnosis. Differentiate Bullous pemphigoid-should be made primarily from: A totally pemphigus;

▲ dermatitis herpetiformis Dühring.

Treatment. The most effective treatment for pemphigus corticosteroid-inflammatory drugs (prednisolone 20-30 mg daily). In some cases, a good effect is achieved by combined treatment - prednisone, broad-spectrum antibiotics, antimalarial drugs, multivitamins.

SCAR pemphigoid (pemphigus cicatricis), or mukosinalny atrophy bulleznaya dermatitis, pemphigus eye. For scars pemphigoid characteristic that in the former bubble subsequently formed scars, adhesions, and atrophy. Affects the mucous membranes, conjunctiva century mainly, sometimes leather. This may result in narrowing of the optic fissure to happen, there immobility of the eyeball and blindness. Treatment. Should be conducted jointly with the eye doctor. Assign the same preparations as for the treatment of bullous pemphigoid.

Forecast. For the life of a favorable prognosis, but sometimes developing blindness and scarring of the mucous membranes of deformation can greatly reduce the work capacity of patients.

**BENIGN NEAKANTOLITICHESKAYA Pemphigus ONLY oral mucosa.**

Described BM Pashkov and ND in 1959 when the disease for many years, bubbles appear only in the mucosa of the mouth, not appearing elsewhere. Clinical features of the flow do not differ from pemphigus. Bubbles in this disease smaller (3-10 mm in diameter) are sub epithelial, without acantholysis phenomena, occur in some patients almost continuously, while others with remissions from several days to several weeks. Subjective complaints of patients are reduced to a small feeling of burning and constriction of the mucosa. Erosion after the opening of the bubbles quickly, leaving no scarring or atrophy. Treatment. Spend antihistamines, low dose corticosteroids (5-20 mg of prednisolone) in combination with anti-malarial agents. Assign vitamins C and R. Local treatment is the same as in b, pemphigus (benign) is characterized by the formation of bubbles subepithelial without cells symptom Nicholas negative.

Prognosis is favorable. Actually pemphigus:

- More often in older people
  - Chronic
  - The emergence of tense blisters on the oral mucosa, lip-less
  - Blisters develop on the hyperemic or on a fixed basis and cannot be opened for a long time
  - After autopsy blistering erosions heal without scarring
  - Blisters on the skin of various sizes with transparent contents
- Muco-atrophic bullous dermatitis sinehialny (pemphigus eyes)

- Proceeds benign
- Affects the mucous membrane of eyes or mouth with scar formation
- The first bubbles can occur in the oral mucosa
- Erosion are not on the periphery of the epithelium of fibril Flaking and not prone to peripheral growth.
- Do not bleed,
- May be chronic rhinitis, lesions of the esophagus, mucosal atrophy, or spike the external genitalia
- Get sick more often women over 50 years

Benign Pemphigus only the oral cavity:

- No mucosal rtaovozhdaetsya violation of the general condition of the patient
- On the oral mucosa with small tight bubbles or hemorrhagic content
- At the opening and quickly formed erosion
- Nicholas negative symptom
- The period of epithelialization no erosion scars, adhesions, atrophy.

Common form of: bubbles appear on different parts of the oral mucosa. Sometimes it can appear simultaneously several adjacent bubbles on the site which then formed an erosion. Eruptions are located on the swelling and hyperemic base. Erosion is increasing, The form with the localization of bubbles only on the gums is called the "climacteric" gingivitis.

Herpetic dermatitis During .- oral mucosa is affected in about 10% of patients

- Localized in the palate and cheek
- A group of intense sub epithelial blisters the size of a pea with a clear content and fat tires.
- The oral mucosa around the bubbles slightly edematous and hyperemic
- 3-4 days after the blisters are opened
- In their place, formed a bright red erosions that coalesce to form erosion with scalloped outlines.
- Nicholas negative symptom
- The cells do not
- Pain a little
- Erosion of the mouth, there are 2-3 weeks
- Do not leave scars

Treatment for all types of pemphigoid same as that of pemphigus. It should also be given:

- Deraill of 0.25 g 2 times a tribute
- Gamma globulin
- Multivitamins
- Prestos
- Daps one.

**Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

## **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numeric to draw on the number of students in the group.
3. Blank sheets of paper and pens.

### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Control questions to check for:**

1. What is the etiopathogenesis of the disease?
2. The classification of pemphigoid
3. The clinic itself
4. Clinic pemphigus eyes
5. Clinic pemphigus only posit mouth
6. Clinic herpetic dermatitis During
7. Treatment
8. Forecast

## Answers:

1. The etiology is unknown.
2. Actually , pemphigus eye pemphigus only posit mouth.
  3. Actually pemphigus:
    - More often in older people
    - Chronic
    - The emergence of tense blisters on the oral mucosa, lip-less
    - Blisters develop on the hyperemic or on a fixed basis and cannot be opened for a long time
    - After autopsly blistering erosions heal without scarring
    - Blisters on the skin of various sizes with transparent contents
4. Muco-atrophic bullous dermatitis sinehialny (pemphigus eyes)
  - Proceeds benign
  - Affects the mucous membrane of eyes or mouth with scar formation
  - The first bubbles can occur in the oral mucosa
  - Erosion are not on the periphery of the epithelium of fimbria Flaking and not prone to peripheral growth.
  - Do not bleed,
  - May be chronic rhinitis, lesions of the esophagus, mucosal atrophy, or spike the external genitalia
  - Get sick more often women over 50 years
5. Benign Pemphigus only the oral cavity:
  - No mucosal rtaovozhdaetsya violation of the general condition of the patient
  - On the oral mucosa with small tight bubbles prozranym or hemorrhagic content
  - At the opening and quickly formed erosion
  - Nicholas negative symptom
  - The period of epithelialization no erosion scars, adhesions, atrophy.
6. Herpetic dermatitis During.
  - The oral mucosa is affected in about 10% of patients
  - Localized in the palate and cheek
  - A group of intense sub epithelial blisters the size of a pea with a clear content and fat tires.
  - The oral mucosa around the bubbles slightly edematous and hyperemic
  - 3-4 days after the blisters are opened
  - In their place, formed a bright red erosions that coalesce to form erosion with scalloped outlines.
  - Nicholas negative symptom
  - Totally cells do not
  - Pain a little
  - Erosion of the mouth, there are 2-3 weeks
  - Do not leave scars

7. Treatment for all types of pemphigoid same as that of pemphigus. It should also be given:

- Derrail of 0.25 g 2 times a tribute
- Gamma globulin
- Multivitamins
- Prestos
- Dapsone.

8. Favorable

## 6.2. ANALYTICAL PART

Situational problem number 1

Patient 60 years, complained of the presence of vesicles and erosions on the oral mucosa, cheeks, palate, gums. Erosion slightly painful. Objective: the mucous membrane of cheeks and palate are single bubble size of about 0.5 x 0.5 cm thick cover pulling scraps of bubble detachment forceps the mucous membrane is not observed. There are also single erosion surface fibrinous plaque, slightly painful. On the skin for slightly hydroid background are isolated bubbles with dense it. Mark additional methods of diagnosis. Place a diagnosis. Determine treatment plan

A:

Diagnosis: pemphigoid. Nicholas negative symptom. Total cells do not.

Treatment: Corticosteroids. The drugs

Situational problem number 2

The patient complained of the presence of bubbles and erosions in the mouth. Objectively in the sky, larynx, and buckle mucosa are tense blisters with clear content and a dense cap rock. And as determined by erosion, covered with grayish - white bloom, which is removed by scraping. Eye on the mucosa also has bubbles. Rashes on the skin there. Nicholas negative symptom. Put a diagnosis treatment plan

A:

Diagnosis: Pemphigus eye

Treatment: Treatment for all types of pemphigoid same as that of pemphigus. It should also be given:

- Derrail of 0.25 g 2 times a tribute
- Gamma globulin
- Multivitamins
- Prestos
- Dapsone.

Situational problem number 3

D. 45 years old patient complained of pain in the sky. Objectively in the sky visible to the group stressed the sub epithelial blisters the size of a pea with a clear content and fat tires. Skin and mucous others unchanged. Place a diagnosis.

A:

Diagnosis: pemphigoid

Situational problem № 4

The patient, 50 years appealed to the clinic with a diagnosis of "Herpetic dermatitis During."

Make a plan of treatment.

A:

Treatment: Corticosteroids in the shock dose is gradually reduced. Antibiotics and sulfonamides, calcium chloride 10% w /.

Local:

- dental health
- Rational prosthetics
- Baths of anesthesia before eating, deodorizing and sanitizing after the meal.
- Applications corticosteroid ointment 3-4 times a day, alternating with metiluratsilovoy ointment.

Situational problem number 5

The patient, appealed to the clinic with a diagnosis of "Pemphigus eye." Make a plan for the survey.

A: Cytological study. Laborotornoe study

Tests

1. Pemphigoid refers to

- A) \* dermatitis
- B) The preconcert
- B) beriberi
- D) Infectious Diseases
- D) Blood Diseases

2. For pemphigoid is characterized by:

- A) negative symptom Nicholas \*
- B) a symptom of "apple jelly"
- B) a positive test vesicle
- D) with positive test probes
- D) positive serological reactions

3. Primary morphological element in pemphigus:

- A) sub epithelial bladder \*
- B) naphtha

- B) papule
- D) plaque
- A) intraepithelial bubble

4. When pemphigoid in smears - not applicable to the printout:

- A) cells Ttsanka \*
- B) T-lymphocytes
- B) in lymphocytes
- D) leukocytes
- D) fibroblasts

5. The prognosis of pemphigoid:

- A) favorable \*
- B) unfavorable
- B) is unknown
- D) a full recovery
- D) transition in cancer

6. Pemphigoid is more common in:

- A) the elderly \*
- B) Children up to 1 year
- B) 13 17 years young
- D) adults 25-40 years
- A) pre-school children

7. In the treatment of pemphigoid do not use:

- A) tetracycline \*
- B) gamma-globulin
- B) multivitamins
- D) prestos
- D) Danson

8. Herpetic dermatitis is more often localized During:

- A) the heavens and the cheek \*
- B) The hyoid region
- B) red border of lips
- D) gingiva
- D) amygdala

### **6.3. The practical part**

#### **Manual skill**

#### **Taking a swab - print**

Purpose: To teach the method of taking smears

Indication: For the purpose of diagnosing diseases of the oral mucosa

Equipment: Dental chair, drill, dentist's standard set, skimmed rubber, dyes, alcohol, glass slide, cotton rolls, an anesthetic.

**Following the steps:**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Identify the affected area of the oral mucosa.	0		7
2	The application of anesthetic gel on a cotton roll for appliqué anesthesia	0		7
3.	Isolate sore from saliva.	0		8
4.	Gum, sterilized by boiling impose on the mucous membrane, remove the mark	0		10
5.	Reshoot the impact on low-fat slide.	0		8
6.	Dried at room temperature.			15
7.	Seal with alcohol.			15
8.	Commit by dye			15
9.	Look under the microscope.			15
	Total:	0		100

**10. Study Questions**

1. The etiology
2. classification of pemphigus
3. Clinical manifestations of various types of it
4. Clinical diagnostic methods
5. laboratory research
6. differential diagnosis
7. treatment
8. Forecast

## LESSON № 8

**THEME: «Lichen rubber planus. Clinics.Diagnosics.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

- To familiarize students with the diseases of lichen ruberplanus.
- To teach students the methods of diagnosis of lichen ruberplanus.
- To introduce the etiologic factors of lichen ruberplanus.
- To teach the students ability to characterize the clinical picture of lichen ruberplanus.
- Train the differential diagnosis.
- Train the choice of treatment.
- To familiarize students with preventive measures to prevent occurrence of lichen ruberplanus.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

The student should know:

- Complaints of the patient with lichen ruberplanus.
- Which is caused by infection of red lichen.
- Clinical forms of lichen ruberplanus.
- Stage of the pathological process.
- The most characteristic clinical signs.
- Treatment strategy.
- The tactics of a dentist.

The student should be able to do:

- Identify ways of lichen ruberplanus.
- To diagnose a form of lichen ruberplanus.
- To make a treatment plan.
- Anesthesia ointment of destruction.
- Antiseptic.
- Application of drugs to the elements of defeat.
- Measures of precaution and prevention.

## 4. MOTIVATION

Knowledge of clinical and diagnostic planus is important in dentistry. The resulting body of theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry, Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Planus (lichen ruberplanus) - a chronic inflammatory disease of the skin and mucous membranes, manifesting the formation of cornfield papules. This disease is more common in women aged 40 - 60 years. When lichen planus along with skin lesions are often marked changes in the mucous membranes of the mouth and lips red border. Quite often an isolated lesion of the oral mucosa. According to E. Abramova, simultaneous skin and oral mucosa were observed in 25% of patients, and isolated location in the oral mucosa without skin lesions established at 75% of patients. Planus is localized on other mucous membranes: genitalia, anus, conjunctiva, esophagus, stomach, and urethra. Etiology. Not fully understood. There is a viral, toxic-allergic theory of the origin of the disease. Planus usually occurs against a background of chronic diseases of the gastrointestinal tract, hypertension, diabetes, neurosis, immune system imbalances, etc. The majority of patients showed a significant increase in the permeability of blood vessels and decrease immune reactivity. A certain importance in the development of lichen ruberplanus of the oral mucosa is trauma (sharp edges of teeth or poor-quality prostheses, the phenomenon of galvanism, an allergic reaction to plastic prostheses, etc.). The clinical picture. The main morphological element of defeat – keratinized papule round or polygonal shape up to 2 mm in diameter. On the skin papules usually flat, with a waxy luster, are pinkish or bluish-red color. On the oral mucosa due to keratinization of the epithelium and the constant maceration, they acquire a whitish-gray color, standing out against a

background of normal or hyperemic mucosa. A characteristic feature of lichen ruberplanus - a tendency to merge papules in a picture that resembles a lacy net, snowflakes, tree branches, sometimes the ring band. Papules slightly above the level of the mucous membrane, giving it a surface roughness. On the back side of the tongue and papules, merging, often form a plaque of various sizes, resembling leukoplakia; papillae in this region are smoothed.

Smokers are more pronounced papules and large, they often accumulate stains leukoplakia. On the red border of the lips may papules coalesce to form a strip whitish, sometimes taking the stellate form. Planus in red border and the mucosa of lips often leads to glandular hey-Lt. The most typical localization red cheeks in the mucosa at the site adjoining molars with the capture of transient folds on the sides and back of the tongue with the transition to the lower surface of molars. Less commonly affects the lips, gums, the sky, mouth floor. Due to the diversity of clinical manifestations of lichen ruberplanus of the oral cavity are following its forms: the typical (simple), oxidative hyperons, erosive and ulcerative, bulbous, hypercheratotic

A typical form. It occurs more frequently than others. Nacre whitish papules arranged individually or in the form of patterns, lace, leaves, ferns, rings, bars on the apparently intact mucosa. In such a typical picture of lichen ruberplanus subjective feelings expressed by the minimum and can manifest a burning sensation, tightness, roughness, dryness of mucous membranes of the mouth. Quite often, the disease is asymptomatic and can be found by chance when viewed as a dentist.

Exudative-hyperemic form. Rarer. Papules located on the hyperemic, edematous mucosa. This form of oral mucosal more severe pain, burning, pain, worse when taking spicy food, conversation. Against the background of inflamed, hyperemic mucosal pattern of papules may lose clarity and even partially disappear. But in the process of reverse development, when reduced edema and hyperemia of the mucous membrane, the figure again shows papules. Erosive-ulcerative form. The heaviest of all forms. It can occur as a complication of typical and forms as a result of hyperemic mucosa various traumatic factors (sharp edges of the teeth, dentures, the phenomena of galvanism, etc.). In this form of hyperemic and edematous on the oral mucosa are eroded, sometimes ulcers, around which against the background of pronounced inflammation in the form of the figure are typical of lichen ruberplanus papules erosions or ulcers of irregular shape, covered with fibrinous coating, after which the removal occurs readily bleed. They can be single, small, weak, but there may be multiple and with a pronounced soreness. Such erosion and ulcers are kept for a long time, sometimes for months, even years without epithelizeruyas. Often influenced by the treatment they are partially or completely epithelized, but soon again recur on the same or another location of the mucous membrane, sometimes even after cessation of treatment. Sometimes in place a long-existing erosions and ulcers occur areas of mucosal atrophy. In some cases, existing long-term erosion and ulcers may dangerously qualified. Bullous form. Is rare. Characterized, along with the typical rash whitish-pearly papules, the appearance of bubbles with diameters from 1 mm

to 10 mm. Bubbles can be a serous or hemorrhagic content, quickly opened. Period of their existence for several hours to 2 days. Generated on-site erosion bubbles quickly that distinguishes bulbous form of lichen ruberplanus of erosive-ulcer. Duration of flow bullous forms may be different, and sometimes blisters may appear for many months. Blisters may appear on the oral mucosa together with papules or join them later. Sometimes they precede papules, which creates difficulties in the diagnosis of red flat. It characterized by the presence of various forms and shapes plaques, towering above the level of the mucous membrane with sharp boundaries

Around foci of hyperkeratosis are popular rash typical of lichen ruberplanus. Most often, this form is localized on the cheek mucosa and dorsum of the tongue. Described a form of lichen ruberplanus can be transformed into one another. Thus, as a result of complications typical form may pass into exudates-but-hyperemic and erosive-ulcerous. The process of transformation is due to the influence of general (systemic diseases) and local factors. The presence of sharp edges of teeth and dentures, dissimilar metals, dent-maxillary anomalies and distortions, untreated periodontitis, tartar facilitate the transition of lichen ruberplanus of the typical form in the more severe. Lichen planus - a chronic disease characterized by persistent long-term trend. It can last for decades with alternating exacerbations and remissions, the duration of which is influenced by severe general disease and the availability of local traumatic factors in the oral cavity. Lichen planus on the oral mucus .

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of

complexity of tasks for all subgroups of approximately the same.

5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Control questions to check for:**

1. The etiology of lichen ruberplanus
2. Classification of lichen ruberplanus
3. Differential diagnosis of lichen ruberplanus
4. Additional methods for the study of lichen ruberplanus
5. General treatment of lichen ruberplanus
6. Local treatment of lichen ruberplanus
7. Importance of hygiene and dental health
8. Preventive health examinations and

#### **Answers:**

1. Etiology unknown. There are neurogenic, and viral theory
2. CLASSIFICATION:
  - 1) Typical (SIMPLE)
  - 2) exudative hyperemic
  - 3) Erosive-ulcerative
  - 4) Bullous
  - 5) HYPER-KERATOTICHESKAYA
3. DIFFERENTIAL DIAGNOSIS must be done with leukoplakia, candidiasis, lupus erythematosus, Papular SYPHILIS, allergic CTOMA Titus, Chronic injuries, Bowen's disease.
4. DIAGNOSTIC SPECIMENS FACILITATES Schiller and luminescence

method (RAYS Wood). Diagnosis can be established by biopsy.

#### 5. GENERAL TREATMENT:

In all forms, sedation (sodium bromide and 1 tablespoon 3 times daily after meals DRUGS VALERIAN 1 tablet 3 times a day NOZEPAM. RUDOTEL, hlozepida 1 tablet at night), the course to 1-2 months. Depending on the form and severity of disease. Vitamin therapy. - (Vitamin A and 10 drops 3 times a day with meals), a course in 1.5 - 2 months with 2 months of INTERRUPTION. Vitamin B1 B12 of 1.0 in number 10, nicotinic acid, 0.05 g 3 times daily after meals for 1.5 months and a multivitamin.

AT Erosive-ulcerative and bullous form.

Effective combination treatments. 1. A). Prednisolone 20-25 mg a day.

B). Do Lagos FOR 0.25 grams 2 times in 4-6 weeks.

In). Nicotinic acid 0.05 GRAM 3 TIMES A DAY AFTER EDY.DOZU

Prednisolone decreases every 7-10 days by 5 mg.2.GISTOGLOBULIN software 2 mg subcutaneously 2 times per week COURSE 08/10 injection.

#### 6. LOCAL:

CAREFULLY dental health OF REPLACEMENT amalgam fillings, REMOVE dissimilar metals.

MANAGEMENT PROSTHETICS.

Inhibit sharp, spicy and hot food

Application OBEZBOLEVANIE: 1 - 2% PIROMEKAIN, 5% SOLUTION FOR Anesthesia peach oil, 1 - 2% SOLUTION Trimekain.

Antisepsis: SOLUTION Chamomile, 0.5% solution of chlorine bleach, 0.02% SOLUTION furatsillina.

Enzymes: Trypsin, Pancreatin. APPLIQUE 1 per day for 15 minutes.

1% nicotinic acid. And 1 ml together with 1% solution of Novocain or Trimekain A Day Enter under the Lesions, the course 15 - 20 injections. When bad Portability Niacin AML Lesions DO PROCAINE (TRIMEKAINOVUYU) BLOCKADE 2-3 times a week, AT THE RATE OF INJECTION 10.12.

Anti-inflammatory and Decongestants EFFECT

REACHES Lesions Suspensions

Hydrocortisone Prednisolone or solution, 8-12 EMBARGO

ONCE A DAY FOR 3 0.5-1.0 ml and INKTSII 5% solution

Hingamin (delagila) software 1-1.5 ML 12.10 BLOCKADES every day or two. Injections of 1 ml ELEMENT UNDER SHOCK

HONSURIDA through the day.

KERATOPLASTICHESKIE TOOLS: application to the LOCI

SHOCK Oily solution of vitamin A, E, ointments

7. CAREFULLY dental health amalgam fillings OF REPLACEMENT, DELETION dissimilar metals MANAGEMENT PROSTHETICS HAS A major role in treating disease.

8. Clinical supervision.

TYPICAL INSPECTION FORM every 5 months (to compensate for the form).  
GIPERKERATOTICHESKAYA, erosive and ulcerative, bullous, THE FIRST  
YEAR OF INSPECTIONS 1.5-2 months (decompensated form).

## **6.2. ANALYTICAL PART**

Situational problem number 1

Patient H for 40 years complained of a burning sensation, tightness and roughness of the buccal mucosa on the right. Objective: to the buccal mucosa and lateral surfaces of the tongue in the molar regions marked whitish, slightly above mucosa and lace-like pattern. Sharp edges of teeth 765

Place a diagnosis. Make a plan of treatment

A:

Diagnosis: The typical form of lichen planus.

Treatment: Treatment is symptomatic

### Situational problem number 2

The patient complains of 40 years, a metallic taste in the mouth. On examination, there are prostheses of different metals, and through the closing of the teeth, papules on the basis.

Your tactics

A: Rehabilitation of the oral cavity, the removal of different metals, symptomatic treatment

### Situational problem number 3

Patient 45 years complains of burning sensation in the cheeks after the prosthesis. When viewed through the buccal mucosa interdigitation hyperemic, swollen, painful erosions are, around which one can see a whitish pearly papules in a picture

Place a diagnosis. Justify it.

A:

The diagnosis: lichen planus. Element papule lesions characteristic of this disease

### Situational problem № 4

The patient turned 50 years old to the clinic with a diagnosis of "lichen planus" erosive-ulcerous form  
Make a plan for treatment

Answer: Effective combination therapy method

A). Prednisolone 20-25 mg a day.

B). Do Lago FOR 0.25 grams 2 times in 4-6 weeks.

In.) Niacin 0.05 GRAM 3 TIMES A DAY AFTER EDY.DOZU Prednisolone decreases every 7-10 days by 5 mg.2.GISTOGLOBULIN software 2 mg subcutaneously 2 times per week COURSE 08/10 injection.

### Situational problem number 5

Patients to 45 years turned into policnics. Made diagnosed with lichen planus typical form.

Tactics doctor

A: Rehabilitation of the oral cavity, rational prosthesis, the appointment of sedatives, injections of nicotinic acid 1% under the seat, application.

Tests

1. The main morphological element in lichen ruberplanus:

A) Spot \*

B) bubble

B) erosion

D) tubercle

D) keratinized papule

2. The appearance of bubbles is observed in the form of lichen ruberplanus:

A) \* bullosa

B) a typical

B) erosive and ulcerous

D) exudative hyperemic

3. As a result of hyperkeratosis formed:

A) plaques \*

B) scales

B) crack

D) crust

D) spots

4. Planus is more common in

- A) women 40-60 years \*
- B) Early Childhood
- B) male 20 years
- D) teenagers
- D) All answers are correct

5. Signs with lichen planus

- A) increased keratinization, dodging the edges or base of the lesion \*
- B) a general malaise
- B) with the appearance of a meal
- F) temperature rise
- D) distribution of the elements of damage to adjacent areas

6. Symptomatic pattern of inflammation observed in the form of lichen ruberplanus

- A) exudative hyperemic \*
- B) a typical
- B) bullous
- D) hypercherotic
- D) erosive and ulcerous

7. For the topical treatment of typical forms of lichen planus is not used

- A) \* dekamín
- B) aekol
- B) oily solution of retinol acetate
- D) karotalín
- D) ointment

8. Severe and difficult-to-treatment is a form of lichen planus

- A) erosive and ulcerous \*
- B) a typical
- B) exudative hyperemic
- A) Bullous

### 6.3. The practical part

#### Manual skill number 6

#### Stages of the local processing of the oral mucosa.

Objective: To give local treatment of the oral mucosa in patients.

Indications: Local treatment with the inflammation of the oral mucosa.

Equipment: dental chair, dental unit, dental standard set, anesthetics, antiseptics, cotton wool rolls, Kamistad – gel

#### Following the steps:

Following the steps:				
№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in

				full
1.	Determine the pathological lesion in the mouth.	0		15
2.	Rinse the mouth with a weak solution of antiseptic	0		15
3.	Inflamed area isolated from saliva with cotton rolls, dried.	0		20
4.	Conduct a local anesthetic ointment	0		20
5.	Kamistad - gel applied to the cotton swab and apply to the inflamed area of the oral mucosa	0		20
6.	Make recommendations to the patient.			10
	Total:	0		100

### 10. Study Questions

1. The etiology and pathogenesis of SLE.
2. Clinical forms of lupus erythematosus
3. Clinical types of lupus erythematosus on the red lips hiring.
4. Clinical forms of lupus erythematosus on the oral mucosa.
5. Differential diagnosis of lupus erythematosus
6. Additional methods for the study of lupus erythematosus
7. General treatment of lupus erythematosus
8. The tactics of the doctor - dentist in lupus erythematosus.

## LESSON № 9

**THEME: «Oral mucous membrane lesions in systemic lupus erythematosus.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa with lupus, a clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

#### ***The student should know:***

- Clinical features of the oral mucosa with lupus
- Histological changes of the oral mucosa with lupus
- Treatment of the oral mucosa with lupus

#### ***The student should be able to:***

- Characterized by an element of defeat lupus erythematosus
- Identify and distinguish the major clinical changes in the oral mucosa with lupus
- Provide a differential diagnosis of oral mucosa with lupus

### 4. MOTIVATION

Knowledge of different methods of lupus is important in preventing and treating diseases. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, chemistry. Acquired during the course knowledge will be used at the origin of their pharmacology, internal medicine, surgery, physical therapy and other clinical disciplines.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

**Lupus erythematosus** - a group of collagenoses. The etiology is not clear. Precipitating factors include chronic focal infection, a disorder of the nervous and endocrine systems, photosensitivity. Sick more often women 20-40 years of age.

The clinical picture. Lupus erythematosus is an acute (systemic) and chronic (discoid). In chronic lupus affected skin of the face, lips red border and mucosa of the mouth. Isolated mucosal injury is very rare. On the face appear sharply defined scaly pinkish-red spots, which merge together. In the lesion focus are three zones: the persistent erythema, hyperkeratosis, atrophy of the heart. The defeat of the face resembles a butterfly. At the same time can also affect the oral mucosa (the sky, region, distal buccal mucosa, lower lip red border). On mucous BP Pashkov, B. Stoyanov, A. Mashkilleysen (1970) identified three forms of the disease: a typical, exudative-hyperemic, erosive and ulcerative.

In a typical form of mucus is infiltrated diffusely or chamber-red. Foci are covered with scales surrounding area of atrophy in the center like a stockade.

In the exudative-hyperemic pattern of hyperkeratosis and atrophy of the smoothed due to pronounced edema and hyperemia of the hearth.

When erosive ulcerous form in the center of the focus appears sharply hyperemic erosion or ulcer. This is the most painful form occurs in areas with the largest trauma of the mucosa.

Differentiate lupus erythematosus with lichen planus, leukoplakia, heylitom. Difficulties arise only when the diagnosis of isolated lesions of the mucous, which is used histological and fluorescent method of diagnosis.

The general treatment is carried out at the Department of connective tissue. Patients were prescribed anti-malarial drugs (hingamin, delagil, small doses of corticosteroids, vitamin B).

Local treatment: sanitation, hygiene, oral corticosteroid ointment fluoride ("Sinalar", "Lorinden", "Flutsinar") several times a day to lesions.

Prevention of recurrence of the disease: elimination of unfavorable meteorological conditions (high and low temperatures, high insolation), the application of the spring and summer of antimalarial drugs, sunscreens.

Acute lupus erythematosus - a serious systemic disease, oral mucosal fever, visceral (endocarditis, glomerulonephritis, polyarthritis), leukopenia, increased erythrocyte sedimentation rate. The treatment is conducted at the Department.

The defeat of the red border of lips and oral mucosa

The defeat of the oral mucosa and lips usually occurs after the onset of rash on the skin or in conjunction with them. According to TN Antonova, lupus erythematosus red border of lips can be a long time to exist separately without lesions on the skin. On the oral mucosa lupus erythematosus localized mainly on the cheeks, palate, gums and rarely on the tongue.

The clinical picture of chronic lupus of the mucous membranes of the mouth and lips red border is considerable variation. TN Antonova (1965) offered the most complete classification of chronic lupus erythematosus red border of lips and oral mucosa. She identified four forms of lupus erythematosus red border of lips:

1. typical;
2. form without clinically significant atrophy and hyperkeratosis;
3. erosive-ulcer;
4. deeper form of galoshes-Irganga.

And there are three forms of lesions of the oral mucosa:

1. typical;
2. exudative-hyperemic;
3. erosive and ulcerative.

It was noted that all clinical forms of lupus erythematosus red border of lips and oral mucosa can be transformed into one another.

A typical form of lupus erythematosus red border of lips on the frequency of 46% of all forms of lupus erythematosus lips. In this form there are erythema, hyperkeratosis, and atrophy. The process may diffuse to capture all the red border, no mucosal infiltration expressed or manifested in the form of limited infiltrative lesions. In the diffuse spread of intensely red border and red color, moderately infiltrated, covered tightly seated whitish-gray scales, while trying to delete are marked soreness and bleeding. On the periphery of the focus on the lip mucosa can see parts of epithelial opacities in the form of irregularly pronounced stripes of white. With a limited lesion has one or two focal infiltrative. Sometimes they merge, forming a solid infiltrative focus with different shape in the center of which is seen as a result of retraction of atrophy, which is red border is considerably weaker than in the skin.

Sometimes there is the strong hyperkeratosis - species, with the horny layers may be similar to voracious leukoplakia or coetaneous horn.

The shape of lips defeat red border without clinically significant atrophy occurs in approximately 11% of patients. For this form is characterized by mild erythematic and pronounced hyperkeratosis. The process is often diffuse. There have congestive hyperemia and peeling lips. The scales in the form of thin platelets in part can be easily removed. In some areas there are not sharply marked infiltration and telangiectasia, due to which the lip gets "pied" look.

Erosive-ulcerative form of lupus erythematosus red border lip occurs in about 43% of patients. Defeat is localized mainly on the lower lip, which is due to several

contributing factors: a rich vascularization, anatomical features, regular watering saliva and, finally, permanent scarred lips. This form is characterized by severe inflammation, against which there are erosions, fissures, ulcers, covered with serous and sero-bloody crusts. Erosion are often located on a slightly infiltrated base, hyperkeratosis in the form of flakes and atrophy determined on the periphery of the lesion. This form of oral mucosal mouth burning and soreness, increasing during the meal.

Profound form of lupus-sarcoma Irganga on the lips is rare. The defeat of the form of limited acting over a red border nodular formation on the surface are determined by a small erythema and hyperkeratosis. Diagnosis is confirmed by the presence of typical lesions of lupus erythematosus in the skin, lips, and the effectiveness of treatment with antimalarial drugs.

Clinical feature of lupus red border of lips is the occurrence of secondary glandular heylita, which, according to TN Antonova, observed in 22% of patients. It occurs most frequently in erosive-ulcerative form. A characteristic feature of secondary glandular heylita is its disappearance after the devolution of clinical symptoms of lupus erythematosus.

A characteristic feature of SLE is the glow of the lesions in light of the lamp rays Wood. Foci of typical lupus glow blue snow or snow-white. In the form of lupus erythematosus without clinical atrophy is low-intensity glow with a bluish tinge. A typical form of lupus of the mucous membranes of the mouth is characterized by one or more sharply limited inflammatory foci of red or reddish-purple color with a slightly towering edges and slightly sunken center. On palpation of lesions to feel some density due to the existing basis of their infiltrate. In the central part of the focus is often observed smooth bluish-red atrophied surface covered with numerous white or bluish-white stripes and delicate dots, often arranged in a stockade, and occasionally telangiectasias. In the long-existing foci of white, sometimes the "star" stripes and dots are present in the peripheral zone. This marked cornification throughout the lesion attached to homes similar to lupus erythematosus leukoplakia. In some cases, foci of lupus dramatically on the hyperkeratosis. At the same time on the periphery of the lesions formed opal or white-pearl overlay, giving a shock similar to lichen planus.

Exudative-hyperemic form of lupus erythematosus of the oral mucosa is characterized by bright erythema, edema and pronounced hyperkeratosis in the form of small dots and stripes.

Erosive-ulcerative form of lupus erythematosus of the oral mucosa is characterized by the same clinical manifestations as exudative-hyperemic form, but against the background of these changes, there is one or more of painful erosions or ulcers. Erosion of various sizes and shapes, covered with dense fibrinous coating, while trying to remove the bleeding that appears. Often around the erosion on the background of erythematic seen radian diverging from the center of the hearth white fine striations. On the periphery of focal keratinization phenomenon amplified and sometimes forms lightly towering curb. A close examination of the border shows that it consists of several closely adjacent to each other and point bars, arranged in a palisade.

Pockets of lupus erythematosus on the oral mucosa in the light of Wood's have a white or dull white glow in the form of stripes and dots. Cytology smears from lesions of lupus erythematosus in the fluorescence microscope can be seen nuclear keratinized epithelial cells of yellow-orange or orange-red color.

### Histology

Histological changes of the oral mucosa with lupus are very specific. For lupus of the mucous membranes of the mouth and lips red border is characterized by lesions of the epithelium, collagen and inflammatory infiltrate. Histological features of these changes are:

1. parakeratosis or parakeratosis alternating with hyperkeratosis;
2. vacuolar degeneration of cells of the basal layer of the epithelium;
3. dense infiltrate in the connective tissue, consisting mainly of lymphocytes, often settling down perivascular, at least - and diffuse subepithelial;
4. degeneration of collagen fibers, especially large under the epithelium and around the small blood vessels.

Degenerated collagen fibers usually stain well with hematoxylin and eosin, they clearly revealed the neutral mucopolysaccharides. There may be a disintegration beams of collagen. Vacuolar degeneration of basal epithelial cells vary from small foci to sites of continuous degradation, resulting in the bubble detachment from the epithelium, and then formed erosion. Clinically defined marginal erythema caused by proliferation of blood vessels, dilated capillaries and stagnant.

In cases where a dense inflammatory infiltrate is located directly beneath the epithelium, histological similarity gets to that in lichen planus. However, in the lower dermis with lupus always found perivascular arrangement of the infiltrate and degeneration of collagen. Under the epithelium of the degenerative changes of collagen type often have gaps filled with homogeneous substance easily stained, but these changes are usually masked by subepithelial lymphocytic infiltrate.

The presence and degree of lymphocytic infiltration under the epithelium directly depend on the degree of degeneration of cells of the basal layer. In areas of the mucous membrane of the mouth is always determined by a considerable parakeratosis and marked acanthoses, which are responsible for white coloring of the epithelium.

### Course

The clinical picture of lesions of the oral mucosa in acute lupus erythematosus differs significantly from that in chronic, though occasionally on the oral mucosa in these patients may have lesions that resemble manifestations of erosive-ulcerative or exudative form of chronic hyperemic lupus erythematosus. The majority of patients with acute lupus erythematosus in the mucosa of the sky and gums appear swollen or common focal spot stagnant-red color with a fibrous plaque, sometimes pronounced hemorrhagic spots have shade. In addition, there may be elements. On the periphery of spots are often formed telangiectasia. Quite often in patients with acute lupus erythematosus on the oral mucosa at different places having variegated bubbles, sometimes with bloody contents.

During acute lupus erythematosus differs by a constant progression of the disease with progressive involvement in the process of various organs and tissues. Course

of chronic lupus erythematosus long, sometimes the process continues for decades. Lupus erythematosus on the red border of the lips may be long-term (25 years) exist in isolation. The disease occurs in most patients and is exacerbated in the spring and summer, and autumn and winter comes spontaneous improvement. Chronic lupus erythematosus may be complicated by erysipelas inflammation and malignancy, which often occur during the localization process in the lower lip. Malignancy in SLE occurs in 0,5-9,5% of patients, which allows to relate erosive and ulcerative form of lupus erythematosus lips to the optional precancer. Clinical signs of incipient malignancy - a manifestation of compaction at the base of the hearth or on one of its sites and increased keratinization. Always be alert and bleeding sudden erosion.

#### Diagnosis

The diagnosis of chronic lupus of the mucous membranes of the mouth and lips red border in typical cases, when combined with the characteristic rash on the skin do not present any difficulties. However, given the localization of lupus erythematosus may have great clinical similarity with a number of diseases of the lips and oral mucosa. Particularly difficult diagnosis of lupus erythematosus with isolated lesions of the lips. The greatest similarity lupus erythematosus in red border of the lips is with lichen planus.

#### Differential diagnosis

In the differentiation of the typical form of lupus erythematosus and lip shape without clinically significant atrophy and hyperkeratosis with typical exudative hyperemic and forms of lichen ruberplanus should be borne in mind that depriving characterized by marked cyanosis of the lesion, which consists of fused together papules. When lichen planus rash popular form always defeated. In contrast, lichen ruberplanus in the typical form of lupus is atrophy. The presence of atrophy, erythema, keratinization of a different nature, the possibility of extending the process with red fringe on the skin distinguishes the typical form of lupus erythematosus from leukoplakia. In addition, from lichen ruberplanus and leukoplakia lupus lips can be distinguished by the snow and the blue glow of the lesions in light of Wood.

Typical form of lupus erythematosus should be differentiated from the lips of actinic heylyta, which is characterized by a more pronounced hyperemia and irregular infiltration, giving lip "mottled" appearance, scaling, atrophy, and the absence of glow in the rays of the lamp Wood.

Form of lupus erythematosus without clinical atrophy must be distinguished from the dry form of exfoliative heylyta. The clinical picture is characterized by the latter not bright erythema, lesion covered with thin scales, resembling the leaves of mica, tightly attached to the center to the underlying tissue. Defeat in contrast to SLE is located along the Bay in a wide band, leaving the unaffected part of the red border, adjacent to the skin. The process never goes to the skin during its monotonous and does not depend on the season. Scales with exfoliativecheilitis is not shining in the rays of the lamp Wood.

The greatest difficulty in differential diagnosis of erosive and ulcerative represent a form of lupus erythematosus and lichen ruberplanus with their localization in the

red border of the lips. The clinical picture is often impossible to differentiate between these diseases and then helps to study the lesions in light bulbs Wood. If you have lupus cornification snow-blue glow, and when lichen planus - a whitish-yellow. Sometimes only a microscopic examination or direct the FTA, with the help of which revealed deposits of Gig in the affected mucosa or red border in the epidermal-dermal connections, usually in the form of lumps and granules in patients with lupus erythematosus, can accurately distinguish between these diseases.

Erosive-ulcerative form of lupus can be similar to the abrasive Manganotti, which unlike lupus around the surface erosion, located just within the red border, the inflammatory response and no hyperkeratosis. The disease occurs mostly in older people.

Lupus erythematosus of the oral mucosa should be differentiated from lichen ruberplanus, especially since both of these diseases have similar clinical forms, and atrophy, observed with lupus of the mucous membrane of the mouth, it is invisible. The main differential diagnostic feature is the nature changes: in lichen planus - is merged into a picture horny papules that are available in all forms of the disease, lupus erythematosus - is located on the periphery of the hearth small foci of keratinization as close to each other thin bars reminiscent of the palisade.

As for the differentiation of lupus erythematosus with leukoplakia, when the latter is no inflammation, and keratinization is the only symptom, and it is noted throughout the lesion in the form of a thin film would be piled. Erosive and ulcerative form of lupus erythematosus, as well as erosive and ulcerative form of lichen ruberplanus and leukoplakia, should be differentiated from cystic disease.

#### Treatment

Prior to the medical treatment of patients with lupus erythematosus in need of examination to exclude systemic lesions, detection of lesions of focal infection, determine the reaction of the skin to sunlight.

Treatment of patients with chronic lupus erythematosus should begin with a readjustment of the body and protect the lesions from direct sunlight. The most effective means of treatment are synthetic antimalarials - hingamin (chloroquine, delagil). They appoint 0.25 g, 2 times a day. Heading dose of 20 g on average, but it can vary depending on the clinical manifestations of disease and tolerability. The effectiveness of synthetic antimalarial drugs increases considerably with the appointment of both low-dose prednisone (10-15 mg), triamcinolone (8-12 mg) or dexamethasone (1.5-2 mg) (TN Antonova).

A good effect is produced by the method of injection. To apply hearth 5-10% solution of the drug, introducing it with an outbreak in a dose of 1-3 ml 1-2 days after the acute inflammation subsided. For the treatment of lupus is widely used complex vitamins, especially niacin at a dose of 0.05-0.1 g 3 times a day.

Good, but not persistent therapeutic effect can be obtained in the treatment of lupus erythematosussinalar ointments, ultralan, flyutsinar etc. When erosive-ulcerous form initially recommend corticosteroid ointments containing antibiotics or other bactericides. In applying these ointments after 2-4 days you can get a therapeutic effect, especially when expressed inflammatory phenomena, but at the termination

of the lubrication process, many patients relapse quickly. Treatment of patients with acute lupus erythematosus hold permanently corticosteroids.

#### Prophylaxis

Prevention of relapse of chronic lupus erythematosus, particularly during the localization process on the lips, is to eliminate focal infections in the mouth, as well as in the treatment of diseases of internal organs. Persons suffering from lupus should avoid sun exposure, under conditions of high and low temperatures, etc. Going out into the street, it is necessary to lubricate the lesions or former places of localization of lupus erythematosus sunscreen cream ("The Shield," "Ray"), which contain para-aminobenzoic acid, or ointments containing salol or quinine.

In the first years after the resolution of lesions of lupus erythematosus in the spring and summer to prevent a recurrence of patients can be given small doses of antimalarial drugs (1/2-1 tablet daily) or presotsil 2-3 tablets a day. Persons suffering from lupus boundary should be at the dispensary.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.

11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

**Variants of questions:**

1. Etiology of SLE?

Lupus erythematosus - a group of thematosus. The etiology is not clear. By precipitating factors include chronic focal infection, a disorder of the nervous and endocrine systems, photosensitivity. Diseased more often women 20-40 years of age.

2. Classification of chronic lupus erythematosus red border of lips and oral mucosa?

TN Antonova (1965) offered the most complete classification of chronic lupus erythematosus red border of lips and oral mucosa. She identified four forms of lupus erythematosus red border of lips:

1. typical;
2. form without clinically significant atrophy and hyperkeratosis;
3. erosive-ulcer;
4. deeper form of galoshes-Irganga.

And there are three forms of lesions of the oral mucosa:

1. typical;
2. exudative-hyperemic;
3. erosive and ulcerative.

3. Typical form of lupus erythematosus lips should be differentiated?

Typical form of lupus erythematosus should be differentiated from the lips of actinic heylita, which is characterized by a more pronounced hyperemia and irregular infiltration, giving lip "mottled" appearance, scaling, atrophy, and the absence of glow in the rays of the lamp Wood.

4. Differential diagnosis of erosive-ulcerative form of lupus erythematosus?

The greatest difficulty in differential diagnosis of erosive and ulcerative represent a form of lupus erythematosus and lichen ruberplanus with their localization in the red border of the lips. The clinical picture is often impossible to differentiate between these diseases and then helps to study the lesions in light bulbs Wood. If you have lupus cornification snow-blue glow, and when lichen planus - a whitish-yellow. Sometimes only a microscopic examination or direct the

FTA, with the help of which revealed deposits of IgG in the affected mucosa or red border in the epidermal-dermal connections, usually in the form of lumps and granules in patients with lupus erythematosus, can accurately distinguish between these diseases.

Erosive-ulcerative form of lupus can be similar to the abrasive Manganotti, which unlike lupus around the surface erosion, located just within the red border, the inflammatory response and no hyperkeratosis. The disease occurs mostly in older people.

## 5. Histology?

Histological changes of the oral mucosa with lupus are very specific. For lupus of the mucous membranes of the mouth and lips red border is characterized by lesions of the epithelium, collagen and inflammatory infiltrate. Histological features of these changes are:

1. parakeratosis or parakeratosis alternating with hyperkeratosis;
2. vacuolar degeneration of cells of the basal layer of the epithelium;
3. leukocytic infiltrate in the connective tissue, consisting mainly of lymphocytes, often settling down perivascular, at least - and diffuse subepithelial;
4. degeneration of collagen fibers, especially large under the epithelium and around the small blood vessels.

Degenerated collagen fibers usually stain well with hematoxylin and eosin, they clearly revealed the neutral mucopolysaccharides. There may be a disintegration beams of collagen. Vacuolar degeneration of basal epithelial cells vary from small foci to sites of continuous degradation, resulting in the bubble detachment from the epithelium, and then formed erosion. Clinically defined marginal erythema caused by proliferation of blood vessels, dilated capillaries and stagnant.

In cases where a dense inflammatory infiltrate is located directly beneath the epithelium, histological similarity gets to that in lichen planus. However, in the lower dermis with lupus always found perivascular arrangement of the infiltrate and degeneration of collagen. Under the epithelium of the degenerative changes of collagen type often have gaps filled with homogeneous substance easily stained, but these changes are usually masked by subepithelial lymphocytic infiltrate. The presence and degree of lymphocytic infiltration under the epithelium directly depend on the degree of degeneration of cells of the basal layer. In areas of the mucous membrane of the mouth is always determined by a considerable parakeratosis and marked acanthosis, which are responsible for white coloring of the epithelium.

## 6. A characteristic feature of lupus?

A characteristic feature of SLE is the glow of the lesions in light of the lamp rays Wood. Foci of typical lupus glow blue snow or snow-white. In the form of lupus erythematosus without clinical atrophy is low-intensity glow with a bluish tinge.

## 7. Treatment?

Prior to the medical treatment of patients with lupus erythematosus in need of examination to exclude systemic lesions, detection of lesions of focal infection, determine the reaction of the skin to sunlight.

Treatment of patients with chronic lupus erythematosus should begin with a readjustment of the body and protect the lesions from direct sunlight. The most effective means of treatment are synthetic antimalarials - hingamin (chloroquine, delagil). They appoint 0.25 g, 2 times a day. Heading dose of 20 g on average, but it can vary depending on the clinical manifestations of disease and tolerability. The effectiveness of synthetic antimalarial drugs increases considerably with the appointment of both low-dose prednisone (10-15 mg), triamcinolone (8-12 mg) or dexamethasone (1.5-2 mg) (TN Antonova).

A good effect is produced by the method of injection. To apply the hearth 5-10% solution of the drug, introducing it with an outbreak in a dose of 1-3 ml 1-2 days after the acute inflammation subsided. For the treatment of lupus is widely used complex vitamins, especially niacin at a dose of 0.05-0.1 g 3 times a day.

Good, but not persistent therapeutic effect can be obtained in the treatment of lupus erythematosussinalar ointments, ultralan, flyutsinar etc. When erosive-ulcerous form initially recommend corticosteroid ointments containing antibiotics or other bactericides. In applying these ointments after 2-4 days you can get a therapeutic effect, especially when expressed inflammatory phenomena, but at the termination of the lubrication process, many patients relapse quickly. Treatment of patients with acute lupus erythematosus hold permanently corticosteroids.

## 8. Prevention?

Prevention of relapse of chronic lupus erythematosus, particularly during the localization process on the lips, is to eliminate focal infections in the mouth, as well as in the treatment of diseases of internal organs. Persons suffering from lupus should avoid sun exposure, under conditions of high and low temperatures, etc.

Going out into the street, it is necessary to lubricate the lesions or former places of localization of lupus erythematosus sunscreen cream ("The Shield," "Ray"), which contain para-aminobenzoicacid, or ointments containing salol or quinine.

In the first years after the resolution of lesions of lupus erythematosus in the spring and summer to prevent a recurrence of patients can be given small doses of antimalarial drugs (1/2-1 tablet daily) or presotsil 2-3 tablets a day. Persons suffering from lupus boundary should be at the dispensary.

## 6.2. ANALYTICAL PART

### Tests:

1. Foci of hyperkeratosis with lupus in the light of Wood's light by light:

A snow-blue

- B. dark brown
- B. yellowish-brown
- G. cream
- D. violet

2. Additional methods of investigation of lupus erythematosus

- A. Fluorescent
- B. Functional
- B. Potter test
- G. sample
- D. Schiller-Pisarev test

3. The differential diagnosis of lupus erythematosus is carried out with:

- A CPL
- B. HRAS
- B. MEE
- G. pemphigus
- D. OGS

4. The differential diagnosis of lupus erythematosus is not carried out with:

- A. Stevenson-Johnson syndromes
- B. leukoplakia
- B. CPL
- G. Manganotti

5. High body temperature, joint pain, characteristic forms of lupus erythematosus:

- A sharp
- B. a typical
- B. exudative-hyperemic
- G. erosive-ulcer
- D. deep

6. Lupus erythematosus is more common:

- A. Women 20-40 years
- B. Children
- B. 60 years old male
- G. grown-ups
- D. All the answers are correct

7. Bubbles with hemorrhagic contents occur in the form of lupus erythematosus:

- A sharp
- B. deep
- V. typical
- G. erosive-ulcer

7. Histological lesions in lupus erythematosus is characterized by:

- A. alternating hyperkeratosis.
- B. acantholysis
- B. spangios
- G. papilomatos
- D. ballooning degeneration

### **Situational problem.**

Number 1. The patient, aged 40, complained of pain when eating. Objective: to the oral mucosa are visible erosion and ulcers, around which are against the background of erythema radially divergent white stripes. On the periphery of erythema observed phenomenon of hyperkeratosis on the cheeks, nose, there is erythema in the form of a butterfly.

Make a diagnosis.

Number 2. The patient, aged 20, complained of high body, joint pain, gastritis. Objective: the mucous membrane of the sky and the cheeks are hemorrhagic spots, blisters, erosions, covered with fibrinous deposit. On the skin-spot congestion. In the blood, leukopenia, anemia, elevated erythrocyte sedimentation rate.

Make a diagnosis.

Number 3. Patient 42 years complained of pain in the mouth, burning sensation. Objective: to the face marked change in the form of erythematous forms of butterflies, on the mucosa of lips are red border plaques and flaking.

Make a diagnosis.

Make a treatment plan.

### **6.3. The practical part**

List of manual skills on the topic: "Defeat of the oral mucosa insole"

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment

4. Application of enzymes that remove fibrinous film
  5. The imposition of anti-inflammatory creams and keratoplasty
- Manual skill

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze masks	0	10	20
2.	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment.	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	The imposition of anti-inflammatory creams and keratoplasty	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Clinic of the oral mucosa with lupus?
2. The differential diagnosis?
3. Treatment?
4. Prevention?

## Lesson number 10

### Anomalies in the development of language. Clinic. Diagnosis. Treatment.

A. Place of training, equipping,

dental office, a phantom study, plaster casts, phantoms composite filling materials, quizzes, tests, situational problem ^, slides, spreadsheets, video;

TCO: slaydoskop, TV-video.

Two. The duration of the study subjects

Number of hours - 331 minutes

Three. The purpose of classes

To study changes RBCU prizabolevanie language clinic and diagnosis of disease, to familiarize students with mucosal lesions, histological changes of the mucosa.

Objectives

The student should know:

- Clinical features RBCU with abnormalities of language
- Histological changes RBCU with abnormalities of language
- Treatment RBCU with abnormalities of language

The student should be able to:

- Identify and differentiate between major clinical changes in the abnormal development of language
- To carry out differential diagnosis of abnormal development of language

4. Motivation

? |

Knowledge of different methods of disease of language is important in the prevention and treatment of disease. Need to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the future will help the specialist to apply them in practice.

Five. Interdisciplinary communication and INTER

Teaching this topic is based on the knowledge students fundamentals of anatomy, histology, biochemistry, pathological physiology, and chemistry. The findings of the studies of knowledge will be used for the origin of their pharmacology, therapy, surgery, physical therapy and other clinical disciplines.

6. The content of training

6.1. The theoretical part

Desquamative glossitis (? Geography? Language) - it is inflammatory and dystrophic disease. Numerous studies show pathogenetic its connection with diseases of the gastrointestinal tract. Histologically revealed thickening of the epithelial layer, dystrophic changes in most epithelial cells in the underlying tissue

- raoschirenierivaskulyarnye persistent infiltrates.

The clinical picture. Not accompanied by marked subjective sensations. Sometimes patients complain of a feeling of tingling, burning sensation. In different parts of the tongue appear whitish foci. Then, in the central part of the epithelium is torn away, and on this site are pinkish-red spots surrounded by a rim of the epithelium (like a bright flare.) After 2-3 days the center is covered with epithelium stain again, and gradually loses its bright color, whereas on the periphery of the spot continues to grow. Form shapes, similar to a map. There are fixed and migrating form of desquamative glossitis.

Diagnosis. Conducted on the basis of clinical signs and haraktertecheniya. Differentiate from secondary recurrent syphilis. Desquamative glossitis should be differentiated also on desquamation in the tongue with beriberi (B2, B6, B12), allergic conditions, viral infektsiyak, diamond-shaped glossitis, etc.

Treatment. Specific treatment is not developed. When the pain and burning are recommended in addition to rehabilitation of oral antiseptic rinses, applications keratoplasticheskikh assets (oil solution of vitamin A, and the wild rose oil, 1% citral in oil, etc.) inside the multivitamin. Good results are obtained by treatment of calcium pantothenate (at 0.1-2 g four times a day

Within a month). Some positive effects seen with Novocain blocks in the area of lingual nerve (in the course of 10 injections). For soreness advisable to appoint local anesthetics. Be sure to identify comorbidities. The above treatment is aimed at eliminating or reducing pain, reducing the number of relapses, but so far we have no means completely eliminate the possibility of two relapses. Favorable prognosis for life; malignancy is excluded.

\*;

Anomalies and tongue independent of the disease. Diamond (median) glossitis.

Etiology. Has not been fully elucidated. It is believed that diamond glossitis is a consequence of congenital anomalies of the tongue as a result of violations of the processes of embryogenesis. Other authors attribute the anomaly to the degenerative processes on the basis of chronic digestive diseases, in particular, reducing acid-forming function of the stomach.

Morphologically revealed thickening of the epithelium. Sometimes pronounced acanthosis processes with submerged growth of epithelial cords. Infiltrate is perivascular and diffuse.

The clinical picture. A characteristic feature clearly see the emergence of a limited area lesions on the posterior third of tongue circumvallate papillae in front of the center line of the tongue. Lesion is clearly a diamond, sometimes oval in shape. Color of normal damage, or bluish-red, or with the opalescent hue. The disease is chronic, lasting for years. There are three types of diamond-shaped glossitis: a flat (smooth), warty (Bugorkov) and papillomatous (hyperplastic). When the flat surface of the tongue form a smooth, polished, tongue

papillae are absent. Palpation revealed seal the affected area. In the form of warty growths appear dense rough. Painting is often cyanotic. Papillomatous form is characterized by the appearance on the bumpy surface of the whitish-pink growths with a broad base, a flat top. Patients with this form of the disease complain of foreign body sensation.

Differential diagnosis. Carried out with tumors (blastema) language, heterotopic lingual tonsil. In doubtful cases, a biopsy followed by histological examination. Treatment. Depends on the form of defeat. In the flat form of treatment is not carried out. Bugorkov papillomatous form and the tendency to increase, subject to surgical treatment. The most effective laser hair removal or evaporation of the tissues, as well as the use of radiosurgery.

Anomalies and language independent of the disease. Pleated (skrotalnsch) language is a congenital anomaly of the language. It occurs with equal frequency in both children and adults. Pleated language is one of the symptoms of the syndrome Melkerssona - Rosenthal.

The clinical picture. On the back of the tongue are marked numerous furrows, the most profound - usually held in the midline.

Filiform papillae and the mushroom is usually not changed, but foreign | let the surface or the back of the tongue tip is smoothed due to atrophy of the filiform papillae. There is a combination of folded language? Place?. Typically, this congenital anomaly are asymptomatic. In the case of secondary immunodeficiency state concentration of fungal flora in deep folds leads to the so-called candida glossitis. Sometimes patients complain of a burning sensation.

\*

The diagnosis is established on clinical grounds. Changes in the mucous membrane is irreversible, so treatment is not necessary. In the case of accession of Candida infection are recommended treatment with antifungal agents (10% solution of sodium borate in glycerol), Y tushirovanie language aniline dyes, topical klotrymazola in a 1% cream 2-3 times a day.

nomalii and independent of language disorders. Black? Hairy?language.; Black? Hairy? language is characterized by hyperplasia and keratinization filiform papillae of varying severity.

Etiology. There is speculation about the role of leptotriksr as a causal factor, but bacterioscopic study, in most cases, it is found banal flora.

Often development? Hairy? language is associated with gastric intestinal diseases, especially chronic gastritis and colitis. Interestingly Opinion on the constitutional peculiarities of persons suffering from this disease. Diagnostic significance microbiological data.

The clinical picture. In the middle of the back part of the language appears uniformly elongated filiform papillae, whose color varies from light brown to black. Most often this condition occurs in people who abuse tobacco and alcohol. It is sometimes possible to trace the connection of exacerbation?

Hairy? language with taking certain medications and foods. Papillae have a length of 0.5 to 2 - 3 cm at the base of Oia denser towards the apex gradually become thinner and more colored tops. It is believed that the color of the papillae, mainly

influenced by food pigments and waste products of microorganisms.

The treatment is reduced to the hygienic care of tongue scraping overgrown papillae. The surface of the tongue treated with 3% solution of copper sulphate, 5-10% solution of salicyl alcohol, 5% solution of resorcinol and 10% solution of borax in the glycerine. Of the general methods of treatment recommended vitamins, especially of group B.

#### METHODS OF BUSINESS GAME? ROUNDTABLE?

Requires:

- A set of questions and situational problems that have been printed on separate sheets.
- Number plates for a draw in the number of students in the group.
- Clean sheets of paper, pens.

Progress:

- All students are divided into groups by drawing lots at the three subgroups.
- Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
- In the worksheet, write the date, number of groups, faculty, F.students - participants in this subgroup (the name of the business game).
- One of the participants in each group takes the issue out of the envelope. The level of complexity of tasks for all subgroups of approximately the same.
- Students re-write on a piece of your job.

Embarks on a circle that sheet.

- Each student records his answer sheet and passes the other.
- In response to each student is given 3 minutes.
- At the end of working hours shall be the instructor.
- All participants are discussing the results, choose the most correct? Answers for which you put the maximum score
- The discussion is given 15 minutes.
- Students receive points for the answers from the theoretical part of the rating zgshyatiya.
- The resulting score of students in failing to take into account the estimates for the current session.
- The work of resident teachers maintained
- The analysis of responses.

Options questions: 1. Clinic desquamative glossitis?

Not accompanied by marked subjective sensations. Sometimes Roll complain of a sense of tingling, burning sensation. In different parts of the language appear whitish foci. Then, in the central part of the epithelium is torn away, and on this site are pinkish-red spots surrounded by a rim of the epithelium (lane a bright flare.) After 2? 3 days the center is covered with epithelium stain again, and gradually loses its bright color, whereas on the periphery of the spot continues to grow. Form shapes, similar to a map. There are fixed and migrating form of

desquamative glossitis.

## 2. Diagnostika desquamative glossitis?

Conducted on the basis of clinical signs and the nature of utterance. Differentiate from secondary recurrent syphilis. Desquamative glossitis should be differentiated also on desquamation in the language with beriberi (B2, B6, B12), allergic conditions, viral infections, diamond-shaped glossitis, etc.

## Three. Treatment of desquamative glossitis?

Specific treatment is not developed. When the pain and burning are recommended in addition to rehabilitation of oral antiseptic rinses lightweight, application-keratoplas narcotic drugs (oily solution of vitamin A, rosehip oil, 1% tsitralnamasle, etc.) inside the multivitamin. Good results are obtained by treatment of calcium pantouenatom

(By 0.1-2 g 4 times a day for a month). A positive effect

seen with Novocain blocks in the area of lingual nerve (in the course of 10 injections). In severe pain it is advisable to appoint local anesthetics. Be sure to identify comorbidities. The above treatment is aimed at eliminating or reducing pain, reducing the number of relapses, but so far we have no means completely eliminates the possibility of relapse. The prognosis is favorable, malignancy is excluded.

## 4. The etiology of diamond-shaped glossitis?

Has not been fully elucidated. It is believed that diamond glossitis is a consequence of congenital anomalies of the language as a result of violations of the processes of embryogenesis. Other authors attribute the anomaly to the degenerative processes on the basis of chronic digestive diseases, in particular, reducing acid-forming function of the stomach. Morphologically revealed thickening of the epithelium. Sometimes pronounced acanthosis processes with submerged growth epithelialnyhttyazhey. Infiltrate is perivascular and diffuse.

- Differential diagnosis of rhombic glossitis?

Carried out with tumors (blastema) language geterotpicheskoy lingual tonsil. In doubtful cases, a biopsy followed by histological examination.

## Clinic folded tongue?

On the back of the tongue are marked numerous furrows, the most profound - usually held in the midline. Filiform papillae and the mushroom is usually not changed, but sometimes the surface of the back or tip of the tongue is flattened due to atrophy of the filiform papillae. There is a combination of sklachatogoyaryka? Place?. Typically, this congenital anomaly are asymptomatic. In the case of secondary immunodeficiency state concentration of fungal flora in deep folds leads to the so-called candida glossitis. Sometimes voluntary complain chuvstvozhzheniya.

## The etiology of black hairy tongue?

Black? Hairy? language is characterized by hyperplasia and keratinization of various stepenivrazhennosti filiform papillae.

Etiology. There is speculation about the role of leptotriksa as a causal factor, but bacterioscopic study, in most cases, it is found banal flora.

Often development? Hairy? language associated with diseases of the gastrointestinal tract, particularly with chronic gastritis and colitis. Interesting opinion on the constitutional peculiarities of persons suffering from this disease. Diagnostic significance microbiological data.

Eight. The treatment of black hairy tongue

The treatment is reduced to the hygienic care of tongue scraping overgrown papillae. The surface of the tongue treated with 3% solution of copper sulfate, 5 - 10% solution of salicyl alcohol, 5% solution of resorcinol and 10% solution of borax in the glycerine. Of the general methods of treatment recommended vitamins, especially grupyy B.

Tests:

With a flat diamond-shaped form of glossitis:

A treatment is not carried out

B excised lesion

In conducting cryodestruction

Mr. prescribe antiseptic

A treatment is carried out giposensebiliziruyuschuyu

- Forms of diamond-shaped glossitis:

A flat, Bugorkov, papillanaturnaya

B flat, verrucous, erosive and ulcerative

In a typical, bullous, gothic giperkera

Mr. exudative-hyperemic, borodovchataya

A flat, bullous, atypical.

- The center diamond-shaped lesions with localized glossitis:

A strictly along the middle line in front of the papillae zhelobavatyh

B on the tip of the tongue

In the lateral surfaces of the tongue

T in the middle third of the tongue

D at the root of the language on its lateral surface

4 desquamative glossitis is characterized by:

A violation of keratinization and focal degeneration of papillae language B the presence of numerous fissures on the surface of the tongue in hyperplasia of the filiform papillae and the keratinization language D seal the lesion, the absence of papillae papillomatous growths D, significantly above the back of tongue

5 Hairy tongue is more common:

And in the older age

B y novorazhdennyh

In young men G in pregnant women

A juvenile in the period

6, with frequent relapses? Hairy? language is prescribed:

A giposensebiliziruyuschuyu therapy, vitamins C, D, A

B antibiotics and sulfonamides

In the analgesics and vitamins

C mechanical removal of filiform papillae

A anti-fungal therapy

7 Pleated language is one of the symptoms in the syndrome:

A Melkersson-Rosenthal

\

B Behçet's disease

In Stevens-Johnson T-Itsengo Kushengo D Layela

8 The etiology of diamond-shaped glossitis:

A B revealed no congenital syphilis in congenital tuberculosis, helminthic invasion

D D chronic candidiasis

Situational problem.

Number 1. Patient 50 years old, complained of an unusual kind of language oschschuschenie foreign body in the back of the tongue. Objective: to the back of the tongue in the midline of the site has an oval shape with a filiform papillae udlenennymi up to 2 cm, painted a light brown color. Design your diagnosis. Sostavte treatment plan.

Number 2. Patient 20 years old, complained of an unusual kind of language, a burning sensation. OBJECTIVE: the language has many deep furrows transverse symmetric with distinct papillae. Design your diagnosis. Sostavte treatment plan.

Number 3. The man, 35 years old who abuse cigarettes were found in the language of black hair. Subjective: patient unpleasant sensation, an unusual type of language, gagging when eating. The tactics of a doctor.

### 6.3. The practical part

List of manual skills related to: ? Anomalies of language development?

A. Wearing safety goggles, rubber gloves, gauze masks

Two. Application of anesthetic destruction.

3. Antisepticheskaya treatment

4. Applikatsiya enzymes remove fibrinous film

5. Nalozhenie anti-inflammatory ointments and keratoplasty

### Manual Skill

Running number shagi. Shag

vypolnen. Shag not made not made polnostyu. Shag

and

polnostyu. 1.1. Wearing goggles, rezinovyeperchatki, gauze maski 01020

2. Applikatsionnaya of anesthesia porazheniya. 01020

3. Antisepticheskaya obrabotka. 01020 4. Applikatsiya enzymes remove fibrinous plenki 010? 20

5. Nalozhenie

anti-inflammatory creams and keratoplastikov 1020

Forms of control knowledge, skills and abilities

- Interpretation;

Solution of case problems;

Demonstration of skills mastered.

- Active participation in discussions

Results of the written replies

- The solution of test problems

Eight. Criteria for evaluation of the current control

Progress in% number Otsenka Uroven student's knowledge

1196-100% Excellent

"5" full correct answer to the question of pathology. Summarize and make decisions, think creatively, independently analyzed. Case solves the problem correctly, with a creative approach, with full justification of the answer.

\*

Actively and creatively participate in interactive games, the right to make informed decisions, and summarizes, analyzes, practical skills performed brilliantly at the highest level. Notes and drawings made at the highest level, with additional literature. Has? krugozorom. 291-wide 95% Excellent

"5" full correct answer to the questions. 'Sums up and makes decisions, think creatively, independently analyzed. Case solves the problem correctly, with a creative approach ohms, with full justification of the answer. Actively and creatively participate in interactive games on their own analyzes.

| Case solves the problem correctly,

creative approach, with justification (right decision making. Prg skills are correct.

Kohn drawings are correct, with the use of additional literature ... tveta. ktichrskie: pects and

4

zovaniem 386 Excellent-90%

"5" The questions on the topic of anatomy and histology is completely covered. Their own analyzes. | The solution of case problems done correctly. Actively participate in interactive games, make the right decisions. Practical skills are correct .. Notes and drawings are correct .. 481-85% Good

"4" The questions, but the topic of the oral mucosa, anatomy and histology covered polnostyu. Ponimaet cytvoprosa, says confidence is | accurate representation. Situational problems are solved correctly, but the rationale for not fully answer.

Actively participate in interactive games, correct decision making. Practical skills are made pravilno. Konspekty and drawings made pravilno. 576-80% Good

"4" Correct, but not fully bsveschenie issue. The student knows the anatomy and histology of the oral cavity, as well as classification. \* Understands the subject matter, said conviction is accurate representation. Actively participate in interactive games. At the situational problem makes the right decisions.

Practical skills are correct. Notes and drawings made pravilno.671-75% Good

"4" Correct, but incomplete coverage! question. The student knows the anatomy and histology of the oral cavity. Understands the issue, says confidently, is the exact representation on case studies gives nepolnyeresheniya. Practical skills are correct. Notes and drawings made with a few mistakes .. 766-70% Satisfactory

"3" The student knows the anatomy and histology of the oral cavity.Understands the issue, says confidently, is accurate predstavleniya'tolko on certain issues topics. Situational problems are solved correctly, but there is no justification answer practical skills with errors. Notes and drawings made with some

netochnostyami.861-65% Satisfactory

"3" The correct answer to half of the questions. \* Errors in the classification of the oral mucosa are not fully explains the anatomy and histology (JOIIPRasskazyvaet insecure, has no idea just on specific issues topic. Admits Errors in the solution of case. Practical skills are performed with an error. Lecture notes and drawings made with netochnostyami.955-60% satisfactorily

"3" response to errors in half of the questions. The student makes a mistake. Narrated uncertain, has a partial view on the subject.Situational problems are solved? wrong. Practical skills are performed with an error. Notes and drawings made with netochnostyami.1

050-54% Satisfactory

"3" The answer to the third set of questions ^ . The student knows the subject. Situational problems are solved incorrectly at wrong?approach. Practical skills are performed with considerable errors.Synopses | irisunki not vypolneny.1

146-49% Unsatisfactory

"2" There is no right answer to any question ipostavlenny.Situational problems are solved incorrectly. Practical met with considerable Notes and drawings are not satisfied.

? jlaodin e shshbkami task skills.

r1

241-45% Unsatisfactory

# 2 "The student knows the subject. Case solved the problem incorrectly. Practical skills are not satisfied. Lecture notes and drawings are not satisfied.

A

336-40% Unsatisfactory

"2" Do not know the subject is confused. Practical skills are not satisfied. Notes and drawings are not satisfied. A 431-35% Unsatisfactory

"2" to the questions does not give the answers .. Practical skills are not met, no notes and drawings.

9. The chronological map of the practice session number 331 Stage

zanyatiya Forma zanyatiya Vremya min. Pereryv

A

i.

A

11. Proverka Proverka books, attendance studentov 10 min.

3 J2. Vvodnoe word prepodovagelya Obosnovanie temy 10 min. 13, Theoretical chast Diskussiya, oral otvet. Provedenie business game? Roundtable? 45 min

5 min 4. Analiticheskaya chast Reshenie tests and situational zadach 40 min. 15

min 5 Predostovlenie students of visual aids (dummy phantoms, presentations, videos) and giving explanations to nim 20 min 5 min 6. Prakticheskaya

chast Vypolnenie practical navykov 175 minutes

Min 7. Itogi Vystavlenie 45 points, setting the house. Information, questions for self-podgotovki 31 min 10. Test questions

- The structure of the language?
- Blood supply of the language?
- The innervation of the tongue?
- Etiology and clinical desquamative glossitis?
- Etiology and clinical black hairy tongue?
- Etiology and clinical folded tongue?
- Different silnaya diagnosis and treatment of anomalies of language?

11. Recommended Reading

## Summary

A. EV Borovsky Y. Maksimovskiy, Preventive dentistry, p.21-27 ,469-470

## Further Reading:

- Falin LI Glycogen in the epithelium of the mucosa and skin, and its value. / Advances in modern biologii. M. 1962. - № 5. - S.228 - 247.
- Falin LI Histology and embryology of oral cavity and teeth. M., 1963. - P.171 - 171.
- Shamirzaev N. Epishev VA, Mamedov FM Materials for the histology of different topographical zones of the oral mucosa. / In.: Problems stomatologii. Tashkent, 1969. - C.35 - 37.
- Epishev VA, Mamedov FM The most frequent stomatitis in Uzbekistan. Tashkent. In 1970. - C.5 - 35.
- Haemon V. Morphology and histochemistry of the mucous membranes of the mouth vnorm? and under certain pathological conditions in the experiment. Thesis .... Doctor. thesis. In 1989. - 34s.
- AI Rybakov, Banchenko GV Diseases of the oral mucosa. M. 1978. - P.11 -31.
- 8. Zabolevaniya oral mucosa / Ed L.M.Lukinyh. N. Novgorod. 2000 - p.8-11

## LESSON № 11

**THEME: «Cheilitis (exfoliative, actinic, metereologic, glandular). Clinics.Diagnostics.Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dental Office, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, situational problems.
- TCO: slide scope, TV-video, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

To study changes in the oral mucosa disease in the lips, a clinic and diagnosis of disease, provide students with areas of mucosal injury, the histological changes of the mucosa.

#### **Tasks:**

#### ***The student should know:***

- Clinical features of the oral mucosa in mouth disease
- Histological changes of the oral mucosa in mouth disease
- Treatment of the oral mucosa in mouth disease

#### ***The student should be able to:***

- Characterized by an element of defeat in the mouth disease
- Identify and distinguish the major clinical changes in the oral mucosa in mouth disease
- Provide a differential diagnosis of the oral mucosa in mouth disease

### 4. MOTIVATION

Knowledge of different methods of disease lip is important in preventing and treating disease. Necessary to safely carry out all stages of treatment, make the right choice of tools and products. The resulting amount of knowledge in theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, chemistry. Acquired during the course knowledge will be used at the origin of their pharmacology, internal medicine, surgery, physical therapy and other clinical disciplines.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

#### Introduction

The structure of the lip is unusual. They lack the protective stratum corneum and the sebaceous glands that produce life-giving hydro mantle of scarlet fringe, located only in the corners of his mouth. Constant exposure to the lips of the external environment with infinite temperature changes, an increased risk of infection, their participation in the process of feeding, exposure to the lips of environmentally unfriendly, and often harmful substances clogging the glands lipstick lead to dryness, wrinkles, cracks and loss of color. Often, the accession of infection, there are inflammatory diseases of the mouth. One of the most common diseases of the oral mucosa are the various forms . In recent years, the number of patients with this type of disease has increased significantly. The reasons for this variety - and it's environmental degradation, and increased frequency of secondary immunodeficiency states the body and endocrine system diseases, allergy and other causes.

Cheilitis (cheilitis) - an inflammatory disease of the lips with a lesion as a true mucous membrane, and a red border. Under the collective term "cheilitis" combine separate diseases with different etiologies of lips and mouth lesions as a symptom of other diseases of the oral mucosa, skin, some metabolic disturbances, etc. Therefore, in isolation, the term "cheilitis" may not be used as a diagnosis, since it indicates only to localize the inflammatory process.

There are a large number of different types of hyalite, often of similar clinical manifestations but have different origins and, therefore, require adequate therapy.

#### Classification

Primary (or actually self-hyalite)

1. Exfoliative.
2. Glandular.
3. Contact allergic (solar) cheilitis.
4. Meteorological.

Symptomatic or secondary heylity resulting from any disease.

1. Atopic (hyalite combination with atopic dermatitis or neurodermatitis)

2. Eczematous (hyalite combination with eczema)
3. Macrohyalite (makroheylita combination with neuritis of the facial nerve and the folded tongue).
4. Cheilitis.
5. Cheilitis in diseases of the endocrine system.

Primary (independent) hyalite

Exfoliativecheilitis - the disease only the red rims of the lips, oral mucosa desquamation. For the first time this kind of heylita described in 1900 Stelwogen as "persistent desquamation of lips." Later MiculiczKjimmel and proposed the name "exfoliativecheilitis".Exfoliativecheilitis is more common in women. Among the etiological factors of the vast majority of researchers play a key role dysfunction of the nervous system, the various manifestations of psychopathology - anxiety depressive reactions. In addition, a relation between hyperthyroidism and ex-foliativnymheylitom. In recent years, in the pathogenesis of exfoliativeheylita recognizes the role of genetic conditions and immunoaller-logical changes.

The clinical picture. On the clinical course of isolated dry form heylitaexfoliative and exudative. For both forms of exfoliative heylita characteristic localization of pathological changes - affects only the red border of lips from the line of Klein to its middle. Not observed distribution process to the mucous membrane and skin. Preserved free from lesions of the red border of lips, bordering on the skin, and the range of angles of the mouth.

In the dry form patients worried about dry lips, sometimes burning, the appearance of scales, which are usually matched.Thisstate lasts for years. On examination, is determined as follows: one or both lips are dry, there are scales that are in the heart of densely welded together with a red border, their edges raised. After removing the scales of erosion typically do not occur, there is a hotbed of bright flare. After 5-7 days the scales, resembling mica, formed again. Course of the disease for a long, without tendency to remission or cure itself. The dry form exfoliativeheylita can be transformed into exudative.

Exudative form is characterized by severe exfoliativeheylita tenderness, swelling of the lips, the presence of heavy crusts that impede speech, eating. On examination, is determined by the congestion zone Klein, and sometimes swelling, presence of crusts grayish-yellow color. Sometimes the cover hanging in the form of an apron with a significant expression of ekssuda-setting events, so as not affected red border province on the border with the skin. Cause significant exude-setting effects is greatly increased capillary permeability. In the most favorable prognostic is considered exudative form heylita.

Treatment. Therapy eksfoliative-tionheylita presents certain difficulties, and is based on an integrated approach of general and local methods of influence. The importance of psycho-emotional impact on the withdrawn area. For this purpose, a neurologist or neuropsychiatrists appointed sedatives, tranquilizers, conduct psychotherapy. It is shown that an endocrinologist consultation and if necessary, the appointment of appropriate treatment. Local - successful application of laser therapy, ultrasound introduction of various hormonal methods, Bukka therapy (radiation therapy). To lubricate the lips use neutral creams and ointments, and

sometimes hygienic lipstick. Effective is the use of vitamins C and B. To increase the reactivity recommended the use of drugs such as pirogenal, prodigiozan, autohaemotherapy. Effective to use in treatment of immunocorrective drugs. Treatment duration of 1-2 months, the prognosis is favorable.

Glandular cheilitis (che-ilitisglandularis) - Lip disease, caused by either congenital or acquired hypertrophy, re-terotopia small salivary glands and infection. It is known that many cancer muco-se-hatred nature normally located in different topographical areas of the mucous membrane, the greatest number of them located in the submucosal layer of the lower and upper lip and soft palate. If abnormalities of the lower lip buccal glands appear in the transition zone (zone Klein) and red border of the lips. For the first time a detailed description of simple glandular cheilitis Puente and Acevedo (1927). Distinguish two forms glandularheylita-tion: primary and secondary. Called primary glandular cheilitis is not associated with other diseases lips. Secondary glandular cheilitis develops on the background of various diseases with the localization of the lips (lichen planus, leukoplakia, etc.) in those without congenital anomalies of small salivary glands.

In the etiology of glandular hyalite prime importance is a hereditary abnormality of small acini and ducts of salivary glands with signs of hyperplasia and heterotopias, mucosal excessive secretion. By precipitating factors include tartar, inflammatory periodontal disease, tooth decay and other diseases that contribute to infection through extended opening ducts of salivary glands. The same infection can occur with toxins of oral microorganisms, products of their decay and viruses. At the heart of the development of secondary glandular hyalite is irritation of glandular apparatus lips inflammatory infiltrate with leukoplakia, lupus and other diseases, the localization of the lips. As a result of irritation develop hyperplasia of the glands, increased secretion, maceration of the lips, and infection.

The clinical picture. Glandular cheilitis develops mainly in people over the age of 30 years. At the same time noted that the lower lip is affected twice as often than the upper. In early disease patients note a small dry lips and peeling. With these complaints are usually patients do not seek medical advice. Later with the development of the disease and its progression, there is pain due to erosion and cracks. On examination, the mucous membrane of the lips can be seen extended opening end parts of the excretory ducts of the salivary glands as red dots, which are distinguished from droplets of saliva - a symptom of dew. Because of the periodic wetting his lips with saliva and the evaporation of developing dry, there may maceration, cracking, erosion. This contributes to injuries and tissue elasticity lips. Clinical manifestations of secondary glandular hyalite combine complaints and symptoms of the underlying disease, which has caused, and signs of primary hyalite. With the development of purulent process in the small salivary glands may develop an abscess, purulent lip glandular cheilitis.

Diagnosis of glandular hyalite is not difficult, since clinical symptoms it is very peculiar.

Treatment. In the treatment of glandular heylita use anti-ointment (tetracycline, eritromistic and flutsinar and sinalar, ointment, ointment oxalic, etc.). However, the most reasonable method is to electrocoagulation of hypertrophied salivary

glands or husking them surgically. Successful is the use of laser ablation using a surgical laser.

Treatment of secondary glandular hyalite provides timely and correct treatment of the underlying disease and anti-inflammatory therapy.

In order to prevent necessary rehabilitation of the mouth, eliminating dryness, maceration of the lips, mouth normalization and clinical examination of patients.

Contact allergic cheilitis (cheilitis allergica contactis) - condition the lips, which is based on delayed hypersensitivity to various stimuli in contact with their lips red border. Clinical manifestations of contact hyalite described for the first time Miller and Taussig in 1924, Contact allergic cheilitis is diagnosed primarily in women over the age of 20 years. Etiological factors of allergic contact heylita are chemicals that make up lipstick, toothpaste, plastic dentures, etc. You may experience hyalite from contact with metal objects (mouthpieces of wind instruments, pencils, pens and other items). Perhaps the development of occupational allergic contact heylite. Pathological changes occur in the presence of the organism susceptibility to allergic reactions and sensitization to various chemicals.

The clinical picture. Patients complain of the appearance of a strong itching, burning, swelling and redness of the lips. A history of contact with various irritating factors and worsening disease with repeated exposures. On examination reveals redness red border lip, rarely extending to the skin and mucous membranes. When pronounced inflammatory phenomena appear small bubbles which are formed after opening of erosion and cracks. In other cases, described the subjective sensations of oral mucosal desquamation without significant inflammatory reaction.

Treatment. In the treatment of allergic contact heylita main importance is the establishment and removal of the stimulus. Topical use of ointments containing corticosteroid-costeroidy possessing anti-allergic, antipruritic and anti-inflammatory effects (fluorescence-tsinar, prednizolonovaya, ftorokort and other ointments). In addition, a hyposensitization therapy, was appointed interior suprastin, diphenhydramine, fenkorol, Claritin or other drugs.

Meteorological (solar), cheilitis (cheilitis actinica) - disease attributed to a group of inflammatory changes of the lips, which are based on sensitivity to solar insolation, cold, wind and radiation. The disease is more common in men aged 20-60 years. The main etiologic factor is exposure to ultraviolet light in the presence of increased sensitivity to solar insolation.

The clinical picture. On the clinical course distinguish between two forms of the disease: exudative and dry. In the exudative form of patients are concerned, itching, burning lips, the appearance of erosions, crusts. On examination, red border of the lower lip slightly swollen, hyperemic. May experience small blisters or erosions after opening them, there are brown. With these changes comes the pain. The clinical picture of this form heylita like exudative form of allergic contact hyalite. However, as a sensitizing factor acts as solar radiation or exposure to cold. The dry form of actinic hyalite manifested dry mouth, burning sensation and sometimes pain. On examination, marked erythema lips, small flakes of

whitish-gray color. In the following may cause abrasions, erosions. Malignancy actinic hyalite possible if the continued existence of the disease, the addition of other irritants as dust, humidity, smoke, etc.

Treatment primarily involves cessation of the adverse effects of insolation, or other meteorological factors. Topical ointments are used to cortikos-theroid (hydrocortisone, etc.). Apply barrier creams to ultraviolet radiation - (Ray Shield). Inside designate the B vitamins, PP and other meteorological cheilitis may contribute to forms of precancer (limited hyperkeratosis, abrasive Manganotticheilitis, etc.).

Symptomatic (secondary) hyalite

Atopic cheilitis - refer to the group of symptomatic disease lips, but it believes that this kind heylita is a symptom of atopic dermatitis or neuro-dermita. A typical clinical sign of diffuse neurodermatitis is itchy skin with the subsequent development of erythematic, excoriations and lichenification. Characterized by localization of pathological changes: the elbow, the face and neck. In the etiology of atopic hyalite assign great importance to the genetic factors that may create the conditions for the development of an allergic reaction. Allergens can be medicines, cosmetics, food products, as well as bacterial and physical factors.

The clinical picture. Patients with atopic heylitom complain of itching lips, redness, peeling red border of lips. On examination, marked swelling of the small red border of lips with involving in pathological process of the surrounding skin. Characteristic lesions of the oral, submitted infiltrated. As the effects of acute inflammation subsided observed desquamation and lichenification. Infiltration, dry mouth angles lead to cracking. Changes in the lips combined with dry, flaking skin.

Treatment. Preference is given to hiposensibilic Drugs (suprastin, diphenhydramine, or other drugs fenkarol) prescribe B vitamins (riboflavin, pyridoxal-doksin, etc.). Use, in addition, intravenous infusion of sodium thiosulfate 30% gistaglobulina. Used tranquilizers (seduksen, tazepam, etc.) to reduce itching. Locally used as antiallergic, antipruritic ointment: gidrokorti-zone, etc. In a negligible effect of conservative therapy, persistent course of disease using the border rays Bucca. In the diet excludes substances that cause sensitization: caviar, chocolate, strawberry, citrus and other fruits, as well as a sharp and spicy food. Eczematous cheilitis (cheilitiseczematosa) - also referred to as symptomatic disease and treat the lips as a symptom of eczema, which is based on inflammation of the superficial layers of the skin neuro-allergic nature. Allergens may be a variety of stimuli - from microorganisms to medicines prosthetic material structures and components of toothpastes.

The clinical picture. The disease can occur acutely and chronically. In the acute stage patients complain of burning, itching of the lips, swelling and redness of them. This is accompanied by erythema, swelling of the lips with the spread of lesions on the skin. At the same time may cause vesicles, soak, scabs. Consequently, the typical polymorphism of the elements of defeat both lips and involvement in the process of the skin.

Go to the chronic form is characterized by eczematous hyalite decrease the severity

of acute inflammation (edema, hyperemia), and seal by inflammatory infiltration, formation of nodules, flakes. All the changes described in eczematous cheilitis developed on previously unaltered lips. Clinically, eczema complicated by secondary infection manifested swelling, redness of lips, vesicular eruptions, the formation of crusts. With the cessation of bubble eruption appears scaly. Treatment. Use giposen- and sedatives. General treatment is necessary to eczematous lesions. Locally applied lubrication lip ointments containing corticosteroids.

Macroheylite (macrocheili-tis) - Lip disease characterized by persistent edema or increase in muscle stroma. The combination of macrohyelite with neuritis of the facial nerve was first described in 1901 by G. Rossolimo, and then Melkersson. Later addition to these features of the folded tongue symptom was described Rosenthal. The disease is characterized by a triad of symptoms, called the syndrome Mehl-kerssona - Rossolimo-Rosenthal. In the etiology of infectious and attach importance to allergy-cal factor, as well as genetic predisposition. It is assumed, moreover, that the described syndrome is an anti-gionevrous. The clinical picture. Patients worried itchy lips, increasing its size, sometimes edema of other departments face. Patients report continued existence of edema, sometimes spontaneously observed some improvement, but a recurrence. On examination the skin of lip gloss, the color of her has not changed. The skin in the lesion focus becomes bluish-pink hue. Localization of edema, one or both lips, cheeks, eyelids, other departments face. The defeat of the facial nerve appears to skew a person in a healthy direction, smoothing nasolabial folds. The folded tongue, apparently, is not a symptom of the disease, and congenital malformations. Detection of edematous tongue is folded pathonomic sign-nymph syndrome. Diagnosis of the syndrome Mehl-kerssona - Rosenthal can be difficult because it is not always the patient simultaneously detect all three features: can be observed and makroheyliya neuritis or makrohey-lit with a folded tongue. Perhaps the presence of one macrohyelite followed by the addition of other symptoms. The differential diagnosis is carried out with angioedema, lymphangitis-wash, hemangioma. It should also be excluded collateral swelling lips with periostitis and abscess.

Treatment. In the treatment of makroheylita main role belongs to the combination of immunocorrective, desensitizing and antiviral therapy. Assign corticosteroids (dexamethasone 3-5 mg / day, the course of 125 mg), oxytetracycline 100 000 IU 4-6 times a day, antigis-Tamina drugs - tavegil, Su-prastin, fenkorol, gistoglobulin. Vitamins C, B, PP. Immunocorrectory - T-activine, and other antiviral Likopid - bonafton, acyclic-lovir, Zovirax, leykinferon. Effect has a particular application of laser therapy on the lips and the zones of destruction of the facial nerve neuritis.

In the stable forms during remission spend a stimulating therapy pirogenalom, Mr. prodigioza and other drugs. With neuritis using physical factors, Bernard currents, ultrasound, etc. We obtain a good result from electrophoresis or heparin ointment on the lip of its applications, together with di-meksidom. In identifying the sensitivity to bacterial allergens used specific hyposensitization bacterial

allergens. From cosmetics to use surgical excision of the lip, but it does not prevent recurrence. In recent reports on the efficient use of hirudotherapy (medical leech). Forecast - with timely treatment to the doctor and adequate therapy - is favorable.

Gipovitaminoznycheilitis. The most common characteristic of cheilitis developed with hypo-or avitaminosis group B (especially important vitamin C) - Characterized by a burning sensation and dryness of mucous membranes of the mouth, lips, tongue. The mucous membrane hyper-breakness, red border on the lips appear smaller scales (scaling). Formed small vertical cracks in the dry and hyper-red border of the deformed, often these cracks bleed. In the corners of the mouth against the painful cracks formed hyperemia (angular cheilitis, bridou). At the same time develops glossitis, characterized by atrophy of the filiform papillae, the surface becomes smooth back of the tongue, becomes bright red, mushroom-shaped papillae hypertrophy. Language grows in size, often visible imprints of the teeth. Thus, the treatment of many diseases of the lips is a difficult task, but knowledge about the causes and mechanisms of disease development can achieve a positive outcome.

### **Used in this lesson, new teaching technologies: business game "ROUND TABLE"**

#### **USE OF "ROUND TABLE". METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.

9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

### **Variants of questions:**

1. Classification hyalite?

Primary (or actually self-hyalite)

1. Exfoliative.
2. Glandular.
3. Contact allergic (solar) cheilitis.
4. Meteorological.

Symptomatic or secondary hyalite resulting from any disease.

1. Atopic (heylita combination with atopic dermatitis or neurodermatitis)
  2. Eczematous (heylita combination with eczema)
  3. Macroheylite (makroheylita combination with neuritis of the facial nerve and the folded tongue).
  4. Gipovitaminoznycheilitis.
  5. Cheilitis in diseases of the endocrine system.
2. Klinika exudative form ?

Exudative form is characterized by severe exfoliative heylita tenderness, swelling of the lips, the presence of heavy crusts that impede speech, eating. On examination, is determined by the congestion zone Klein, and sometimes swelling, presence of crusts grayish-yellow color. Sometimes the cover hanging in the form of an apron with a significant expression of ekssuda-setting events, so as not affected red border province on the border with significant ekssuda-setting effects is greatly increased capillary permeability.

3. Treatment ?

Therapy eksfoliative-tionheylita presents certain difficulties, and is based on an integrated approach of general and local methods of influence. The importance of psycho-emotional impact on the withdrawn area. For this purpose, a neurologist or neuropsychiatrists appointed sedatives, tranquilizers, conduct psychotherapy. It is shown that an endocrinologist consultation and if necessary, the appointment of appropriate treatment. Local - successful application of laser therapy, ultrasound introduction of various hormonal methods, Buck therapy (radiation therapy). To lubricate the lips use neutral creams and ointments, and sometimes hygienic lipstick. Effective is the use of vitamins C and B. To increase the reactivity

recommended the use of drugs such as pirogenal, prodigiozan, autohaemotherapy. Effective to use in treatment of immunocorrective preparates. Lechenie long 1-2 months, the prognosis is favorable.

#### 4. Etiology heylite?

The disease belongs to the group of inflammatory changes of the lips, which are based on sensitivity to solar insolation, cold, wind and radiation. The disease is more common in men aged 20-60 let. The main etiologic factor is exposure to ultraviolet light in the presence of increased sensitivity to solar insolation.

#### 5. The clinical picture

On the clinical course distinguish between two forms of the disease: exudative and dry. In the exudative form of patients are concerned, itching, burning lips, the appearance of erosions, crusts. On examination, red border of the lower lip slightly swollen, hyperemic. May experience small blisters or erosions after opening them, there are brown. With these changes comes the pain. The clinical picture of this form heylita like oxidative form of allergic contact heylita. However, as a sensitizing factor acts as solar radiation or exposure to cold. The dry form of actinic heylita manifested dry mouth, burning sensation and sometimes pain. On examination, marked erythematic lips, small flakes of whitish-gray color. In the following may cause abrasions, erosions. Malignancy actinic heylita possible if the continued existence of the disease, the addition of other irritants as dust, humidity, smoke, etc.

#### 6. Treatment heylita weather?

Treatment primarily involves cessation of the adverse effects of insolation, or other meteorological factors. Topical ointments are used to cortikos-theroid (hydrocortisone, etc.). Apply barrier creams to ultraviolet radiation - (Ray Shield). Inside designate the B vitamins, PP and other meteorological cheilitis may contribute to the forms of precancer (limited hyperkeratosis, abrasive Manganotticheilitis, etc.).

#### 7. The structure of the lips?

The structure of the lip is unusual. They lack the protective stratum corneum and the sebaceous glands that produce life-giving hydro mantle of scarlet fringe, located only in the corners of his mouth Constant exposure to the lips of the external environment with infinite temperature changes, an increased risk of infection, their participation in the process of feeding, exposure to the lips of environmentally unfriendly, and often harmful substances clogging the glands lipstick lead to dryness, wrinkles, cracks and loss of color. Often, the accession of infection, there are inflammatory diseases of the mouth. One of the most common diseases of the oral mucosa are the various forms of heylites. In recent years, the number of patients with this type of disease has increased significantly. The reasons for this variety - and it's environmental degradation, and increased frequency of secondary immunodeficiency states body and endocrine system diseases, allergy and other causes.

#### 8. Hypovitaminoscheilitis?

The most common characteristic of cheilitis developed with hypo-or avitaminosis group B (especially important vitamin C) - Characterized by a burning sensation and dryness of mucous membranes of the mouth, lips, tongue. The mucous membrane hyper-breakness, red border on the lips appear smaller scales (scaling). Formed small vertical cracks in the dry and hyper-red border of the deformed, often these cracks bleed. In the corners of the mouth against the painful cracks formed hyperemia (angular cheilitis, bridou). At the same time develops glossitis, characterized by atrophy of the filiform papillae, the surface becomes smooth back of the tongue, becomes bright red, mushroom-shaped papillae hypertrophy. Language grows in size, often visible imprints of the teeth. Thus, the treatment of many diseases of the lips is a difficult task, but knowledge about the causes and mechanisms of disease development can achieve a positive outcome.

## 6.2. ANALYTICAL PART

### Tests:

1. Differential diagnosis of exudative form of exfoliative cheilitis should not be done with:

- A. MEE
- B. exudative form of actinic cheilitis
- B. Abrasive Manganotti
- G. Erosive ulcer lupus erythematosus
- A. Erosive ulcer CPL

2. Actinic cheilitis differentiate with:

- A. lupus erythematosus
- B. eczematous cheilitis
- V. glandular cheilitis
- G. Abrasive cheilitis Manganotti

3. Metrologic cheilitis differentiate with:

- A dry form
- B. glandular cheilitis
- B. eczematous cheilitis
- G. chronic lips
- D. All answers are correct

4. In order to prevent actinic cheilitis not use:

- A. 0.25% oxalic ointment

- B. 10% ointment
- V. cream "Ray"
- Mr. Cream "The Shield"
- A. cream "Antilock"

5. Scales, crusts reached a considerable size hanging from his lips in the form of an apron with cheilitis:

- A. exfoliative
- B. eczematous
- V. glandular

6. People with heightened sensitivity to UV irradiation developed cheilitis:

- A. actinic
- B. atopic
- B. meteorologic
- G. exfoliative
- D. glandular

7. Pathological changes are localized only in the red border of the lip line from Klein to its middle, are observed at cheilitis:

- A. exfoliative
- B. actinic
- B. atopic
- G. eczematous
- D. meteorologic

8. Nude hot flushed lips without the formation of surface erosion after the removal of scales, crusts observed at cheilitis:

- A. eczematous.
- B. exfoliative
- B. Mangonotti
- G. glandular
- D. actinic

Situational problem.

Number 1. A woman of 30 years complained of a burning sensation, pain at mouth closing, poor eating and speech. OBJECTIVE: Klein in the area of the lower lip there are flakes of peel-yellow-brown color from corner to corner of mouth, hanging in the form of an apron. After removing the crusts exposed surface bright-flushed lips without erosions.

Put a diagnosis.

Make a treatment plan.

Number 2. The patient, aged 40, complained of dryness of the lower lip, pain when eating. OBJECTIVE: red border of the lower lip is bright red covered with fine, dry, silvery-white scales with areas of hyperkeratosis.

Make a diagnosis and a treatment plan.

### 6.3. The practical part

List of manual skills on "Cheylitis"

1. Wearing safety goggles, rubber gloves, gauze masks
2. Application of anesthesia failure.
3. antiseptic treatment
4. Application of enzymes that remove fibrinous film
5. The imposition of anti-inflammatory creams and keratoplasty

Manual skill

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing safety goggles, rubber gloves, gauze masks	0	10	20
2	Application of anesthesia failure.	0	10	20
3.	Antiseptic treatment.	0	10	20
4.	Application of enzymes that remove fibrinous film	0	10	20
5.	The imposition of anti-inflammatory creams and keratoplasty	0	10	20
	Total:	0	50	100

## 10. Study Questions

1. Clinic Cheylitis?
2. The differential diagnosis?
3. Treatment?
4. Prevention?

## LESSON № 12

**THEME: «Cheilitis (eczematous, contact, atopic cheilitis, chronic rhagades of lips, macrocheilitis). Clinics. Diagnostics. Therapy.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

- To teach students the concept of symptomatic halite
- To teach students the methods of diagnosis of symptomatic hyalite
- Introduce etiologic factors of symptomatic hyalite
- To teach the students ability to characterize the clinical picture of symptomatic heylites
- Train the differential diagnosis of symptomatic hyalite
- Train the choice of treatment for symptomatic hyalite
- To familiarize students with preventive measures for the prevention of symptomatic hyalite
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

#### ***The student should know:***

- Classification. symptomatic hyalite
- the cause of symptomatic hyalite
- the distinct clinical manifestations of symptomatic hyalite
- Treatment of symptomatic hyalite

#### ***The student should be able to do:***

- Defining the elements of destruction, their inspection and palpation
- Elimination of local traumatic factors
- Application of the defeat of anesthesia
- Antiseptic
- Taking the material elements of the lesion for cytology
- Components and hormonal methods on an element of defeat.

## 4. MOTIVATION

Knowledge of clinical symptomatic cheilitis is important in the prevention and treatment of diseases of the oral mucosa. Necessary to safely carry out all stages of the treatment of symptomatic cheilitis, make the right choice of tools and products. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry., Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Cheilitis are benign inflammatory diseases of the lips. These include processes that are localized only on the lips, and diseases that occur with a primary lesion of the red border of lips. There is an independent group of diseases cheilitis and lips caused by systemic diseases of the body, the violation of nutrition and metabolism.

AL Mashkilleysen and SA Kutin developed the most convenient for clinical classification. All cheilitis they were divided into two groups:

- 1) actual and cheilitis
- 2) symptomatic cheilitis.

Group are actually cheilitis exfoliative, glandular, contact (simple and allergic), meteorological and actinic cheilitis Symptomatic cheilitis include a topic, eczematous (eczema lips) and plasma cell cheilitis, as a symptom of the syndrome macrocheilitis Melkersson-Rosenthal, cheilitis with ichthyosis, hypovitaminosis cheilitis.

Eczematous cheilitis is a symptom of eczema is a chronic relapsing disease-border neurological origin. Distinguish acute and chronic forms. Inflammation develops in the red border of the lips, adjacent to the skin and in the perioral area. Eruptions in the form of vesicles, crusts, small cracks are located on the surfaces of erythematous lips. In chronic course marked infiltration, lichenification small,

small flakes, does not heal the cracks in the corners mouth. Successful treatment depends on early detection and elimination of the allergen. Designate antisense and sedatives. Local treatment consists in the appointment of ointments containing corticosteroids, and soak in the presence of aerosols, use of corticosteroids. When microbial eczema and prescribed ointments sprays containing corticosteroids and antimicrobials ("Laura's den C", "Sinalar-N", aerosols "Dexon", "Deksokort" etc.).

Atopic cheilitis. Is one of the symptoms of atopic dermatitis or neurodermatitis diffusion.

The cause of genetic predisposition, a variety of allergic diseases in the family, intolerance to drugs, foods, household chemicals, neuro-psychological factors. In atopic cheilitis affecting  $\rightarrow$  red border of lips with involving in pathological process of the adjacent skin, and in the corners of the mouth lesion is most intense. Red border of lips infiltrated, scaly small scale infiltration and mi  $\rightarrow$  xerochilia eventually leads to the formation of cracks and fissures. The process never goes to the mucous membrane of the mouth. Changes in the lips are often combined with dry, flaking skin.

Patients with atopic hyalite complained of itching, burning, peeling red border of lips.

Atopic cheilitis takes a long time, aggravation of the disease occur mainly in autumn and winter, in summer usually occurs in remission.

In the treatment of atopic heylita holding an important place desensitizing therapy. Inside designate an antihistamine (suprastin, diazolin, Claritin, fenkarol). With long-term persistent disease course can be assigned into corticosteroids for a period of 2-3 weeks (prednisolone children 8-14 years, 10-15 mg / day for adults 15-20 mg / day or dexamethasone). Also used intravenous infusing  $\rightarrow$  of 30% sodium thiosulfate solution (5-10 ml, on course to 10 injections). In some patients, good results were obtained from the use of gistaglobulina who prescribe courses for 6-8 injections, pre  $\rightarrow$  Paraty is administered subcutaneously 2 times a week in increasing doses ranging from 0.2 ml to 1 ml. Inside designate as the B vitamins (B, B6, B12). Topically applied corticosteroid ointment (0.5% "Lorinden", "Flutsinar", etc.) that must be applied to the time  $\rightarrow$  surface 4-5 times a day. For a small effect of conservative therapy and persistent disease within  $\rightarrow$  of the border rays used Bucca. From diet to exclude substances that may cause sensitization: caviar, chocolate, coffee, potatoes  $\rightarrow$  key, citrus, etc., a sharp, salty, spicy foods, alcohol, sharply limiting carbohydrate intake

. The disease may be associated with bronchial asthma, allergic remit . K 25-26 years cheilitis spontaneously cured.

Contact allergic cheilitis.

The cause of hypersensitivity-red border of lips or mucous membrane to various chemicals: lipsticks, creams, chemical, pencils, pens, toothpaste. The disease can occur under the influence of occupational exposures (plastic mouthpieces of wind instruments from the musicians, rubber respirators among the workers of chemical industry, etc.)

Contact cheilitis is a classic manifestation of delayed hypersensitivity. In point of contact with the allergen developed sharply outlined hyperemia, swelling lips, may be cystic lesions. In mild prolonged duration heylita may appear small, but painful cracks on the border with skin lip exfoliation. Edema with poorly defined.

Once process never touches the corners of the mouth and not transferred to the skin. Subjectively, the patient feels pain, dryness, tightness of lips, burning and itching. Diagnosis of allergy tests to help: (drip or compress).

The disease should be differentiated from exfoliative heylita, dry form of actinic heylita, atopic heylita

Chronic crack lips disease occurs in both sexes chaste. Watching in all age groups. Most importance is the individual anatomy of the lips (deep furrow in the center of the lips) and chronic hurt. The difference of meteorological factors can cause dry red border of lips, loss of elasticity and development. The most role hypovitaminosis groups A and B, neurogenic factors, bad habits, acidic foods. Microbial flora supports the existence of cracks and prevents them from it. At first, there is a single more or less deep linear fissure, located laterally on the red border and mucosal disease. The grin is usually in the central part of the red border of the lower lip, but sometimes the side of the centre. The grin can continue with a red border on the mucous membrane, but never applied to the skin. When the irrational treatment of the crack can exist for a long time to diagnose in years. A Chronical crack is not difficult.

Macrohyelite: Lip disease characterized by persistent .Making of it with neuritis of the facial nerve and a symptom of the folded tongue syndrome called Melkersson-Rosenthal.

In the etiology of the disease, an infectious-allergic factors and genetic predisposition.

Clinical picture:

Patients worried itchy lips, increasing its size, sometimes edema of other departments face. On examination, lip gloss, the color of her has not changed. The skin in the lesion focus becomes cyanotic color. Localization of edema, one or both lips, cheek, other departments face. The defeat of the facial nerve appears to skew a person in a healthy direction, smoothing nasolabial folds. Folded language is assumed that an abnormality of development.

Treatment: Assign: corticosteroids: dexamethasone 3-5 mg / day 125mg course, oxytetracycline po100000 Unit 4-6p daily anti-malarial drugs, delagil of 0.25 g 2 p per day on the course, 20-25g, antihistamines, vitamin C and B. When conducting persistent forms of stimulation therapy pirogenalom, prodigioz etc.

With neuritis using physical factors: Bernard currents, ultrasound, etc.

Obtained good results from electrophoresis heparin ointment or its application to the lip with Dimexidum.

From cosmetics to use surgical excision of the lip, but it does not prevent recurrence.

## Used in this lesson, new teaching technologies: business game «ROUND TABLE»

### USE OF "ROUND TABLE". METHOD OF PROVIDENCE:

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

#### **Requires:**

1. A set of questions and situational problems that have been printed on separate sheets.
2. Numbers to draw on the number of students in the group.
3. Blank sheets of paper and pens.

#### **Progress:**

1. All students are divided into groups by drawing lots into 3 subgroups.
2. Each subgroup sit at a separate table, prepare a blank sheet of paper and a pen.
3. In the worksheet, write the date, group number, department, Students - participants in this subgroup (the name of the business game).
4. One of the participants in each group takes the envelope matter. The level of complexity of tasks for all subgroups of approximately the same.
5. Students re-write on a piece of his job.
6. Embarks on a circle that sheet.
7. Each student writes his answer sheet and transfer to another.
8. Response to each student is given 3 minutes.
9. At the expiration of the time shall be the instructor.
10. All participants are discussing the results, choose the most correct answers, for which the maximum score is placed.
11. Discussion is given on 15 minutes.
12. Students receive points for the answers from the theoretical part of the rating classes.
13. The resulting score of students in failing to take into account the estimates for the current session.
14. Work remains resident teachers
15. The analysis of responses.

#### **Application Control and questions for review:**

1. Differential diagnosis of eczematous hyalite.
2. At what age is most common atopic cheilitis?
3. Differential diagnosis of atopic hyalite.
- 4 Treatment of allergic contact hyalite.
5. Prevention of allergic contact  $\neg$  hyalite.

6. Treatment of chronic crack lips.
7. Differential diagnosis macrocheilitis.
8. Prognosis of chronic crack lips.

### **The answers.**

1. Differentiate from atopic one, allergic contact cheilitis, exudative form .
2. The disease is more common in children and adolescents about their sex → aged 7 to 17 years.
3. When conducting a differential diagnosis differential → atopic cheilitis should be considered available in most cases, underlying skin rashes Typically found on the face, elbow, popliteal basins, at least on the skin of body. Atopic cheilitis must be differentiated from clinically similar to it: actinic cheilitis; allergic cheilitis; contact cheilitis, streptococcal pick.
4. In the treatment of allergic contact cheilitis first need to identify and eliminate factors , caused the disease. Used for the topical treatment of → form ointments containing corticosteroids (0.5% "Flutsinar", "Lorinden"), which must be applied to the surface of the red border of lips 5-6 times a day. Inside designate antiseptic drugs (suprastin, tavegil, fenkarol, etc.).
5. Relapse prevention of allergic contact → cheilitis is contact exception to the allergen.
6. In the treatment of chronic lip fissures to determine the cause of the disease and try to apply it strictly. Further corticosteroid ointment: oksikort, Lorinden C epithelized Wed-va: Shostakovsky balm, rosehip oil, sea buckthorn oil, Solcoseryl dental paste are effective in combination with OGL laser, Horecheffects prolonged use (1-1.5 months), the vital Group B (B2, B6) and RR, the blockade of warm 1% solution of Novocain-pa, 1% lidocaine, Valium, ultramarine, trimekaina ,1-2 ml every other day № 3 7. Korki and flakes soften warm proteolytic ferments. In absence of effect is necessary to surgical excision of the fracture within healthy tissue.
7. The differential diagnosis makrocheilitis spend with angioedema, limfngiom, hemangioma, edema of the lips with collateral perioral dermatitis, erysipelas.
8. The process of friendly, but at long edges of the crack substance sealed and can orogovet acquiring a grayish-white film may develop leukoplakia of its edges.

### **6.2. ANALYTICAL PART**

Situational problem number 1

The patient has skin lesions (flexor surface of the forearm, knee area) and defeat the red border of lips (bubbles, cracks, roots, etc.)

Place a diagnosis.

Answer: eczematous cheilitis

Situational problem number 2

The patient has persistent thickening of the lips, a history of frequent relapses with remissions, local violations were found, different facial nerve palsy and placated tongue.

Place a diagnosis.

Answer: Macrocheilitis

### Situational problem number 3

The patient complains of pain when talking, eating.

OBJECTIVE: on the lower lip, in its central part there is a transverse linear lesion extended to the red .Ono lining the lips, but does not apply to your face.

Place a diagnosis.

A: Chronic crack lips

### Situational problem № 4

17 years old girl complained of itching, burning lips, she found it difficult to open your mouth, razgovarivat.Patsientka allergic to various: in swollen, reddened lips visible small nodules, vesicles, scales, crusts.

Place a diagnosis.

A: Atopic cheilitis

### Situational problem number 5

Patient 54 years old came with complaints of itching and burning lips .From the history: more than 10 years experience in the copper-smelting shop in a gas mask. On-no: red border of lips dry, her tiny grooves are transverse and cracks.

Place a diagnosis.

A: Contact cheilitis

### Situational problem number 6

Bolnaya27 years complained of itching and burning lips. From the history: Patient long-term uses lipstick.

On-no: his lips are swollen, hyperemic, they see small blisters, erosions, fissures.

Place a diagnosis.

A: Contact cheilitis

### Situational problem number 7

Patient 35, a chamber musician, brass band, plays the clarinet, complained of burning, itching, dryness lips. Lips edematous, hyperemic, there are small bubbles.

Place a diagnosis.

A: Contact cheilitis

### Situational problem number 8

Patient 17 complained of itching, the formation of crusts on lips. V history-allergodermit, relapse and fall, spring. Age points reduction in symptoms.

Place a diagnosis.

A: Atopic cheilitis

## Tests

1. On the lips with atopic hyalite not detected:

A) erosion, covered with white bloom,

B) crack

B) small flakes

D) dry lips

D) infiltration

2. The topical treatment of contact hyalite use treatment:

A) corticosteroid ointment

B) ointment

- B) tetracycline ointment
- D) heparin ointment

3) The etiology of chronic cracked lips is of great importance:

- A) anatomy of the lips
- B) The viral factor
- B) allergy
- D) chemical stimuli
- D) phylogenic infection

4) In-Rosenthal syndrome combined with

- A) paralysis of the facial nerve
- B) The geographic tongue
- B) leukoplakia
- D) mandibular nerve neuritis
- D) trigeminal neuralgia

5) In the acute stage, eczematous hyalite not observed:

- A) scarring
- B) vesicles
- B) Moisture
- D) crust
- D) bruises

6) eczematous cheilitis differentiate from hyalite:

- A) atopic
- B) makroheylita
- B) glandular
- D) Mangonotti
- A) chronic lip fissures

7. Macroheylite differentiate all diseases, except for:

- A) glandular
- B) angioedema
- B) inflammation of erysipelas
- D) limfoangiom
- D) hemangioma

8) The cause of allergic contact hyalite is all but

- A) humidity
- B) The lipsticks
- B) plastic dentures
- D) mouthpieces of wind instruments
- D) pens, pencils

The correct answers :1-A ,2-A ,3-A ,4-A ,5-A ,6-A ,7-A ,8-A.

### 6.3. The practical part

Purpose: To teach students the elements of medical treatment of lesions in symptomatic cheilitis.

Indications: Diagnosis of diseases of the oral mucosa.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic:

Medical treatment of symptomatic lesions in elements

1. Wearing rubber gloves and gauze masks.
2. Analgesia.
3. Antiseptic treatment (3% H<sub>2</sub>O<sub>2</sub>, 0.06% chlorhexidine).
4. Anti-inflammatory therapy (ointments of antibiotic, antiviral and corticosteroid ointments).
5. Application funds.

Execution of manual skill step by step:

Medical treatment of symptomatic lesions

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wearing rubber gloves and gauze masks.	0	10	20
2.	Analgesia.	0	10	20
3.	Antiseptic treatment (3% H <sub>2</sub> O <sub>2</sub> , 0.06% chlorhexidine).	0	10	20
4.	Anti-inflammatory therapy (ointments of antibiotic, antiviral and corticosteroid ointments).	0	10	20
5.	Application of keratoplastic	0	10	20
	Total:	0	50	100

## 10. Study Questions

1. Classification cheilitis.
2. Eczematous cheilitis. Clinical features.
3. Contact cheilitis. The clinic. Differential diagnosis.
4. Atopic cheilitis. Clinic ..
5. Chronic crack lips. The clinic.
6. Macrocheilitis Clinic.
7. Treating eczematous, atopic cheilitis.
8. treatment makroheylita

## LESSON № 13

**THEME: «Obligate precancerous lesions of oral mucous membrane & red margin of lips».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

- To teach students the concept of obligate precancerous process.
- To teach students methods of diagnosing precancerous obligate processes.
  - To introduce the etiologic factors of obligate precancerous.
- To teach the students ability to characterize the clinical picture of obligate precancerous process.
- Train the differential diagnosis of obligate precancer
  - Train the choice of treatment obligate precancerous.
  - To familiarize students with preventive measures for the prevention of precancerous obligate processes.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

##### ***The student should know:***

- Classification of obligate precancerous process
- The reason for the obligate precancerous
- The various clinical manifestations of obligate precancerous process
- Treatment of obligate precancerous

##### ***The student should be able to do:***

- Identify the elements of destruction, their inspection and palpation
- Elimination of local traumatic factors
- Taking the material elements of the lesion for cytology
- Biopsies with an element of defeat
- Application of the element ceratoplastic defeat.

## 4. MOTIVATION

Knowledge of the clinical picture of obligate precancer is important in the diagnosis of precancerous processes. The resulting amount of theoretical knowledge and manual skills worked in the subsequent future specialist will help successfully apply them in practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry, Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Precancerous lesions is pre-cancer or that changes in the oral mucosa characterized by malignant tumors lack one or more features that allow diagnosis of the tumor. Contribute to the emergence of mechanical, chemical, and physical factors. In the development of precancerous diseases are distinguished: an increase in progression-free, long-term existence without significant changes regression. Various precancerous badly qualified with varying degrees of probability Distinguish between obligate (unconditional, already the intraepithelial carcinoma) and optional (conditional) Precancer classification proposed in 1970 and approved with minor amendments in 1976 godu.

Classification of precancerous PROCESSES O CAN

A) With high frequency badly qualified (obligate)

1. Bolezn Bowen

B) With a low frequency (optional)

1. Leykoplakiya (erosive and verukoz)

2. Papillomatoz.

3. Erozivno-ulcer and hypercerotatic form of lupus erythematosus and lichen rubber planus.

4. Postluchevoy stomatitis.

## Classification of precancerous PROCESSES

Vermillion border of lips:

A). With high frequency badly qualified (obligate)

1. Warty precancer.
2. Narrow premalignant hyperkeratosis
3. Abrasive precancerous cheilitis Manganotti

B). With low frequency badly qualified (optional)

1. Leukoplakia
2. Keratoacanthoma
3. Cutaneous horn
4. Papillomas with cornification
5. Erosive-ulcerative and hyperkeratotic forms of lupus erythematosus and lichen ruber planus
6. Herpetic cheilitis

A typical sign of malignancy, the appearance of a dense infiltrate little pain.

**DISEASE-BOUENA.** rare slow progressive focal disease of the skin and mucous membrane, is regarded as precancerous dermatosis. Hurst men and women 45-65 years. The reason-lasting trauma of the skin and tears. The place of localization, soft palate. The first symptoms of the disease characterized by the appearance of spotted nodular lesions 1 cm in diameter, with a hilly *поверхностью*. Macroscopic tumor is clearly limited plaque from pale pink to dark red, smooth or with small papillary growths without the express of treatment. They can slive. In their regions lymph nodes are not increased. Reversal of observeness. Diagnosis is not be placed on the basis of clinical and histological picture revealed *исследований*. Histological intraepithelial cancer. Differential diagnosis is carried out with leukoplakia (no scales), lupus (inflammation, atrophy), syphilis (papules). Treatment: surgical excision of the plaque within the healthy tissues. Prognosis be unfavorable.

Warty before the cancer. The reasons of insulation and injury. The developments are on the lower lip in men 40-50 years. Clinical hemispherical shape is determined by the node solid consistency to 1cm. *Palpatsiya* painless, the surrounding tissue intact, its color varies from the usual color of red border of lips to stagnant red or grayish-red. Malignisation can occur within 1-2 months after the onset of transition is the focus of looseness. The symptom growth rate of the site, cornification of the surface, the appearance of condensation in *основании*. Дифференциальная diagnosis is a common wart (a hypertrophic stratum corneum on the periphery) papillomavirus (presence of legs), dermatome (a crater filled with horny masses.) Treatment: surgery alone, followed by histological examination, which revealed the proliferation of epithelial cells polymorphism layer, hyper and parakeratosis.

**LIMITED Precancerous Hyperkeratosis.** The reason of insulation, and injury. Can be seen with the men older than 30 years. On the sides of the red border of the lower lip formed by a lesion in the form of an irregular polygon to 1 cm in

diameter, covered with thin scales grayish-white, painless, soft, sharp limited from the surrounding tissues or elevated above them. Differential diagnosis is carried out with leukoplakia (no scales on the surface) and lupus erythematosus (a tissue atrophy and inflammatory response). histological determined limited area of acanthoses, hyperkeratosis. Malignization occurs in the first months after the onset of disease. The treatment is surgical.

**ABRASIVE PREKANTSEROZNY Haley MANGANNOTI.** It occurs in men over 50 years. Contribute to the emergence of an injury, insolation, herpes. Clinical pattern: characterized by the appearance on the red border of the lips one, two, three, erosions, is situated at the side, at least the central portions and has a peculiar bright red with no tendency to bleeding and epithelization. It may be epithelized, but re-appears in the same place after a time. Clinic symptoms of malignancy are expressed unnoticable. It should be paid attention to the education of the infiltrate at the base erosion, bleeding at the slightest injury, the appearance on its surface papillary growths, the development process of keratinization, the lack of therapeutic effect after treatment. Histological reveal defect epithelial acanthoses. The differential diagnosis of abrasive heylita Mangannoti spend with erosive-ulcer lichen ruber planus, lupus erythematosus, actinic hyalites, cancer mouth.

The tactics of the doctor-dentist. Dentists, as well as doctors and any other professions should exercise caution when examining cancer patients. Regardless of the complaints with which a patient asked the patient, careful inspection of the entire band of the mouth and lips red border - the law for a doctor. Any deviation from the norm in the mouth should attract the attention of the doctor. Early manifestations of pre-cancerous or signs of their transformation into cancer, usually invisible to the patient, as painless, so the duty doctor - their timely diagnosis. The concept of "Cancer alertness" primarily refers to the amount of specific knowledge, he, allowing the physician to conduct an early and timely diagnosis of cancer. This concept also includes the knowledge of pre-cancerous diseases, their diagnosis, treatment, and signs of malignancy. In the diagnosis and detection of morphological malignancy the role played by cytological method of study allows us in the correct diagnosis in 90-95% of cases - tests. Material for cytological research method taken by scraping or puncture. In patients with obligate and facultative forms with a greater potency of precancer to malignancy should be carried out with cytologic study. The question of precancerous lesions characteristic tree solved on the basis of complex clinical and morphological traits.

Prevention of precancerous lesions of the obligate OGAN and CGC in the prevention of precancerous diseases of the oral mucosa and lips red fringe of paramount value belongs to the elimination of chronic, traumatic factors mucosa (the sharp edges of the teeth, call, deposits of plaque, broken crowns Dhu CWA, a phenomenon galvanism), anti-smoking fuse compared against excessive insolation and desiccation. An important link in preventing precancerous diseases of the lips red border is the timely treatment of systemic diseases and for chronic inflammatory If cyst membranes of the mouth - chronic fissures of lips, gland-molecular heylita, chronic herpetic lesions and

other.

A large role in the prevention of cancer and precancer that the mouth and lips red border is the mass of sanitary-educational work among the healthy contingent gent  $\neg$  people, as well as among patients seeking help to the dentist. In conversations with patients should pay attention to the harm taking a hot, burning mouth and overly spicy foods, as well as the danger upon  $\neg$  Use by alcohol, smoking. Pay attention to the state of oral hygiene, which is one of the links in the prevention of precancerous changes in  $\neg$  oral mucosa. Particularly seriously on this subject should talk with patients who already are IME  $\neg$  izmeneniya.na precancerous oral mucosa. They should be warned of the likelihood of cancer in the case of non-physician with the necessary requirements (stopping smoking, taking irritant foods, re  $\neg$  regularly for oral care).

Patients with precancer of the oral mucosa and lips, especially obligate its forms must be on active surveillance dentist or oncologist. Physician-hundreds of dentists should have a clear idea of the organization of cancer care, cancer network of medical, cultural institutions in order to quickly send pain. as intended. In difficult cases, diagnosis necessary  $\neg$  sary to remember about the possibility of rapid growth of malignant tumors  $\neg$  positively, and the diagnosis of possible short term  $\neg$  cue. Treatment without a diagnosis must not be more than 7 days. Should remove local irritants, not to apply the funds to promote tumor growth (in  $\neg$  bandits, physiotherapy, etc.). In difficult cases, the physician must bring to the examination of the patient experience more  $\neg$  sits.

At the slightest suspicion against badly qualified.  $\neg$  lenity precancerous process urgently need a product  $\neg$  STI excision of the focus within the healthy tissue with subsequent histological examination. Only after that should decide on further treatment strategy. After treatment of cancer or precancerous disease patients must be on active surveillance.

**Used in this lesson, new teaching technologies: business game «Who is bigger? Who is faster? »**

**USE OF "Who is bigger? Who is faster? "  
METHOD OF PROVIDENCE:**

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

The methodology of the business game "Who will? Who is faster? "

Requires:

1. Cards with questions on the topic (the number of cards equal to the number of students in the group in each card on 3 questions)

2. Stopwatch.

Progress:

1. The game is conducted orally.
2. Students in turn draw a card with questions.
3. Within 3 minutes, each student responds orally to a series of questions (3) written on the card.
4. The teacher counts the number of correct answers.
5. The game involves all students.
6. Total time 45 minutes.
7. Questions that were not answered correctly are discussed.
8. Student responses are evaluated on the following form:  
correct 3 answers - 25 points  
correct 2 answers - 15 points  
correct an answer - 5 points  
correct answer 0 - 0 points.
9. The resulting score of students in failing to take into account the ongoing evaluation activities.
10. In the lower part of the magazine free to hold the mark game warden with the signature of the group.

Questions:

1. Differential diagnosis of Bowen's disease.
2. Subjective feelings of Bowen's disease ..
3. At that resembles Bowen's disease.
4. Status of regional lymph nodes in Bowen's disease.
5. Histological picture of Bowen disease.
6. Localization warty precancer
7. The outcome of the warty precancer.
8. Differential diagnosis of warty precancer.
9. Histological warty precancer
10. Narrow premalignant hyperkeratosis, what is it?
11. Histological picture of hyperkeratosis limited precancerous
12. Differential diagnosis of precancerous limited hyperkeratosis.
13. Does malignization precancerous hyperkeratosis limited?
14. Treatment of precancerous limited hyperkeratosis.
15. Who is more common Manganotti cheilitis?
16. What contributes to heylita Manganotti?
17. Forecast abrasive heylita Manganotti.
18. Differential diagnosis heylita Manganotti
19. Treatment heylita Manganotti.
20. Treatment obligate precancerous.
21. An element of defeat heylita Manganotti.
22. Localization heylita Manganotti.
23. Local treatment heylita Manganotti.
24. What was originally considered to be Bowen's disease?

A ticket

1. Differential diagnosis of Bowen's disease.
6. Localization warty precancer

12. Differential diagnosis limited precancerous diagnosis of hyperkeratosis.

Ticket 2

2. Subjective feelings of Bowen's disease

7. Isthod warty precancer.

13. Does malignization precancerous hyperkeratosis limited?

Ticket 3

3. At that resembles Bowen's disease.

8. Differential diagnosis of warty precancer

14. Lesion limited precancerous hyperkeratosis

Ticket 4

4. Status of regional lymph nodes in Bowen's disease.

9. Histological warty precancer

15. Who is more common Manganotti cheilitis?

5 ticket

5. Histological picture of Bowen disease.

10. Narrow premalignant hyperkeratosis, what is it?

16. What contributes to heylita Manganotti?

6 ticket

11. Histological picture of hyperkeratosis limited precancerous

17. Forecast abrasive heylita Manganotti.

23. Local treatment heylita Manganotti.

7 ticket

18. Differential diagnosis heylita Manganotti

24. What was originally considered to be Bowen's disease?

Element 21 lesions heylita Manganotti.

Ticket 8

19. Treatment heylita Manganotti

20. Treatment obligate precancerous

22. Localization heylita Manganotti.

Answers:

1. Carried out with leukoplakia, lichen planus, chronic traumatic lesions.

2. subjective sensations are usually absent, but the erosion can be expressed in pain

3. The disease can characterize - Xia only a small area of redness or a gathering - stove with leukoplakia without acute inflammation

4. Regional lymph nodes are usually not palpable.

5. Histological, Bowen's disease show a car - mire intraepithelial cancer:

polymorphisms thorny cell layer, increasing the number and irregularity in E. In the thorny layer of giant cells are found, sometimes with multiple cores. There

have been weakened hyper- and parakeratosis, acanthoses always there, the

basement membrane and basal layer of the saved. In the top part of stroma - it has a small infiltration, the states mainly of lymphocytes and plasma cells.

6. Occurs almost exclusively on the lower lip and looks like a painless nodule semi - spherical shape with a warty surface diameter of 4 - 10mm.

7. The transition to the invasive form of cancer occurs quickly - The - cut 1-2 months from onset.

8. Differential diagnosis should be proceeded in the first place with papilloma and wart. Diagnosis be confirmed after histological examination.
9. Histological examination revealed a pronounced limited proliferation of the epithelium by increasing sibilate layer, in some cases hyper complex rates and parakeratosis, polymorphism sibilate cell layer of various degrees, up to the dramatic. The basement membrane is preserved.
10. The disease is pre - furnish a plot of keratinization polygonal shape again - Measure is more than 2 mm. Lesion in most patients as it is immersed in the mucous membrane, often slightly over - falls, but may be somewhat more uplifting, with a flat surface covered with thin, tightly fitting scales. When removing it is not possible. Palpation reveals a superficial lamellar seal. Background changes are absent, at least this form of precancer occurs against a background of nonspecific inflammation.
11. Pri histological determined limited area of acanthuses, often desktop - leucocytes phenomena, and polymorphism of cells, hyperkeratosis on the surface.
12. The differential diagnosis is carried out with leukoplakia, lichen planus, lupus erythematosus
13. Malignancy in - walks a few months or years.
14. Surgical removal of the lesion, within the limits of healthy tissue with histological examination.
15. It occurs mainly in men over 50 years.
16. Contribute to the emergence of this type of injury heylita, insulation, herpes.
17. The process takes from 1-2 months to years, without treatment, leads to under - malignancy.
18. The differential diagnosis should be pro - led with erosive forms of leukoplakia, lichen rubber planus, lupus erythematosus, pemphigus, erythematic multiform oxidative, actinic heylitom, erosion herpes, cancer, lip.
19. Only when an attempt is allowed cheilitis Manganotti conservative treatment. We must carefully remove the irritating local residents - and then to reorganize the oral cavity, including the full value - prosthetics, categorically prohibit smoking and reception irritating food, recommend the elimination of insulation. - not required detection and treatment of concomitant diseases of other organs and systems. Inside designate vitamin A (retinol acetate solution in oil or 3.44% solution of retinol palpitae in oil 5.5%) to 10 drops 2-3 times daily multivitamin. Conservative therapy should not be more than 1 month. Best results are obtained by surgical removal of the source within the healthy tissues.
20. Treatment of all types of obligate precancer - complete excision of the lesion within the healthy tissue, followed by fixed-term histological studies. Excised tissue examined by preparing serial sections. Operations must be preceded by oral decontamination and removal of stimuli. If an operator of intervention is not possible, radiation therapy is shown.
21. One, at least some erosion of red color with a smooth surface, which is sometimes covered with tightly fitting bloody or serous crust. It is removed with difficulty, while there is little blood - stream. Erosion, not crusted, has the propensity to bloodness. Seals at the base there. Erosion differ sluggish current,

persistent treatment for all kinds of ointments and applications .. Long-existing, they can epithelized, but then again there are the same or in other places.

22. On the lower lip, usually the side, more rarely in the center.

23. Assign applications oily solution of vitamin A, and pho  $\rightarrow$  new inflammation - corticosteroid creams and antibiotics, cry therapy, laser therapy.

24. Cancer in situ.

## **6.2. ANALYTICAL PART**

Situational problem number 1

If routine inspection of a man 47 years in buccal mucosa hyperemic background to see the area of hyperkeratosis with finely bumpy surface, some sinking, безболезненный. Histological find a picture of intraepithelial cancer. Put a diagnosis. Find out it.

Answer. Disease Bouena. The notion of diagnosis is an element of destruction and histology.

Situational problem number 2

Male 37 years old complained of education like the horny papilloma.

Of history: it has bad habits: Often drinks, smokes.

OBJECTIVE: In the intact red border of the lower lip has a diameter of 7 mm nodule, painless, normal color, acting on 3mm thick texture, coated with thin cleaners. Put a diagnosis and clarify it. Answer. Approved diagnosis data of objective inspection.

Situational problem number 3

At baseline medical examination of a man 42 years was found below the center of hyperkeratosis red border of the lower lip, covered with thin cleaners. Put a diagnosis and clarify it..

Answer. Limit preneoplastic giperkeratosis. A Diagnosis made on the basis of objective data.

Situational problem № 4

Male 35 years complained of pain-free education to the lower lip.

OBJECTIVE: on the lower lip to the side of the center of a sharply limited, slightly sinking area polygonal shape 2x1, 5 cm, densely covered with thin-seated scales grayish-white color.

Put a diagnosis. Find out it.

Answer. Limited preneoplastic hyperceratos. The diagnosis is made on the basis of objective data.

Situational problem number 5

Male 60 years old with fully edentulous secondary complained of a painless erosion on the lower lip.

Anamnesis: erosion, there are 3 years. It is appeared every six months, she epithelial zed.

Objective: in the center of a red border of the lower lip there is erosion of the red color with a smooth surface not prone to bleeding.

Put a diagnosis. Find out it.

Answer. cheilitis Manganotti. The notion of the diagnosis are clinical history and objective investigation.

#### Situational problem number 6

Male 65 years complained of the presence of erosion.

Anamnesis: Frequently relapsing ill herposis. Erosion there half a year. Badly treatable: appliqué sea buckthorn oil.

OBJECTIVE: The anterior teeth strongly destroyed. On the lower lip to the side surface erosion has an oval shape with a smooth polished surface, deep-red color, covered with bloody crusts, moving away from labor, is prone to bleeding.

Put diagnoz. Clarify it.

The answer. Abrasive precancerous cheilitis Manganotti. The clarifying of the diagnosis are clinical history and objective investigation.

#### Situational problem number 7

In patient 52 years on the buccal mucosa lesion looks like a spotty-knot formation similar to leykoplakiyu. Postavte diagnosis ..

Answer. Disease Bowen

#### Situational problem number 8

A patient 60 years on the lower lip was found in routine inspection painless nodule hemispherical shape with a bumpy surface.

Place a diagnosis.

Answer. precancer.

#### Tests

1. The development of obligate precancerous diseases contribute to:

A). chronic injuries of the oral mucosa and lips red border

B). the endocrine system

In.) Disturbance of the nervous system

D) acute trauma of the oral mucosa

D) a violation of the circulatory system

2. The emergence of heylita Manganotti promote:

A) insulation, herpes

B) allergic diseases

B) focal membranous radiomucositis

- D) the specific disease  
 D) harmful habits
3. Clinically Manganotti cheilitis manifested in the form of:  
 A) erosions, crusts uncovered  
 B) The tubercles  
 B) plaques  
 D) plaque  
 D) scales
4. Narrow premalignant hyperkeratosis red border of lips differentiate with:  
 A) leukoplakia  
 B) heylitom  
 B) glossalgiey  
 D) a chancre  
 D) papulose syphiloderm
5. If there are warty precancer, except:  
 A) gum  
 B) The nodule hemispherical shape  
 B) the transition to cancer after 1-2 months  
 D) hyperkeratosis  
 D) parakeratosis
6. Histological, Bowen's disease do not show:  
 A) spongiosis  
 B) hyperkeratosis  
 B) parakeratosis  
 D) acanthuses  
 A) intraepithelial carcinoma
7. To obligate precancerous does not apply:  
 A) keratoakontoma  
 B) Bowen's disease  
 B) warty precancer  
 D) limited premalignant hyperkeratosis  
 D) cheilitis Manganotti
8. Clinical signs of malignancy heylita Manganotti:  
 A) papillary growths on the surface erosion  
 B) during the slack  
 B) bloody crust  
 D) erosion uncovered crust  
 A) painless erosion
- The correct answer :1-A ,2-A ,3-A ,4-A ,5-A ,6-A ,7-A ,8-A.

### 6.3. The practical part

Execution of manual skill. (step by step) manual skills, "Methods of examination of patients with obligate precancerous."

Purpose: To teach students the methods of examination of

patients with obligate precancerous.

Indications: Diagnosis of diseases OGAN.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of patients with obligate precancerous."

1. Wear protective equipment.
2. Conduct a visual inspection the patient.
3. To inspect the vestibule of the oral cavity (with serried jaws)
4. To inspect the actual oral cavity (tongue)
5. Palpate the salivary glands

Skill Manual methods of examination of patients with obligate precancerous.

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serried jaws)	0	10	20
4.	To inspect the actual oral cavity (tongue)	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. The classification of precancerous processes of the oral mucosa and lips red border.
2. Features of clinical manifestations of the disease Bowen ..
3. warty.
4. Features klinicheskogoproyavleniya limited precanceroushyperkeratosis red border of lips ..
5. Features of clinical manifestations of heylita Mangannoti.
6. Differential diagnosis of abrasive heylitaMangannoti.
7. The tactics of a dentist in obligate precancerous lesions of the oral mucosa and lips red border.
8. Prevention of precancerous lesions of the obligate OGAN andCGC

## LESSON № 14

**THEME: «Elective (facultative) precancerous lesions of oral mucous membrane & red margin of lips.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Dentist, safety goggles, rubber gloves, a mask, the thematic patient (volunteer), tools for the inspection of the mouth, slides, videos, tables, photographs, the atlas of oral diseases, presentations, quizzes, tests, case studies, computer.

### 2. DURATION OF STUDY SUBJECTS

Hours - 331 minutes

### 3. SESSION PURPOSE

- To teach students the concept of facultative precancerous process.
- To teach students methods of diagnosing precancerous elective processes.
  - To introduce the etiologic factors of optional precancer.
- To teach the students ability to characterize the clinical electives precancerous process.
- Train the differential diagnosis of elective precancer
  - Train the choice of elective treatment of precancer.
  - To familiarize students with preventive measures for the prevention of precancerous elective processes.
- Teach them the proper execution of manual skills step by step.

#### **Tasks:**

#### ***The student should know:***

- Classification of precancerous optional processes
- The cause of the facultative precancerous
- The various clinical manifestations of optional precancerous process
- Methods of precancer

#### ***The student should be able to do:***

- Identify the elements of destruction, their inspection and palpation
- Elimination of local traumatic factors
- Taking the material elements of the lesion for cytology
- Biopsies with an element of defeat
- Application of the element defea

### 4. MOTIVATION

Knowledge of the clinical picture of elective precancer is important in dentistry. The resulting body of theory and proven manual skills in the following specialist will help put them into practice.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students of anatomy, histology, biochemistry, pathophysiology, physiology, internal medicine, internal medicine propaedeutics, hospital therapy, oral surgery, prosthodontics, pediatric dentistry, Pathological anatomy, microbiology.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Classification of elective precancer:

OPTIONAL precancerous PROCESSES OLAN:

(Low frequency )

1. Leukoplakia (erosive )
2. Papillomatosis.
3. Erosive-ulcerative form of lupus erythematosus and lichen ruberplanus.
4. steatitis.

OPTIONAL precancerous PROCESSES

Vermillion border of lips:

B). With low frequency badly qualified (optional)

1. Leukoplakia
2. Keratoakantoma
3. Coetaneous horn
4. Papillomas with cornification
5. Erosive-ulcerative and hyperkerotic forms of lupus erythematosus and lichen ruberplanus
6. cheilitis.

Keratoakantoma-epidermal benign tumor, combined with congenital nevi, pigmented xeroderma. Its occurrence is associated with congenital factors. Localized on red border of lips, rarely in the language as a grayish-red solid nodule with funnel-shaped hollow in the center, filled with horny weights. Painless, mobile, not connecting with other tissues. Differs 3 stages of tumor development: growth, 3 months, the stabilization of 3-4 months, involution-3-4 months. Resolves scar, sometimes flat fibrous plaque with a smooth surface or badly qualified.

Coetaneous horn or fibrokeratoma Unna. Pain is rare, occurring on the lower lip in patients more than 60 years. Clinically determined by slow-growing center speaker up to 1 cm in diameter, from which the conical horn leaves to 1 cm long measles cheviot gray colors. Fully consistency, to be welded to the fabric. may develop on the background of a long-term leukoplakia. Histological observed marked hyperkeratosis. The treatment is surgery.

Papilloma with a red border keratinization lips. Good qualified tumor resembling a cauliflower from 1 mm to 2 cm on the stalk or broad base, painless,

soft, consisting of the surface epithelium of the oral mucosa and connective tissue stroma, grayish-white, soft consistency. If you have foot warts-diagnosis is not difficult. The appearance of seal at the base, ulceration, bleeding, increase in the amount of points to the possibility malignization. to have keratinizing papillomas without surgery. The treatment

Papillomatosis of the oral mucosa, congestion sets papillomas.

Are the following types papillomatosis.:

A) Reaction of different nature:

1. vospalitelnyy, capillary hyperplasia of the mucous membrane of the hard palate and alveolar processes.

2. travmaticheskaya papillomatosis cheeks, lips, tongue.

3. rombovidnaya papillomatosis language

B) The euplastic nature of papillomatosis.

Papillomatosis neoplastic nature are located in the back of the cheeks, retromolar areas tend to malignancy.

Reactive papillomatosis is a consequence of long-acting chronic injury infected. Before their growth stops addressing.

Stomatitis, occurs after radiotherapy near focuses erosions and ulcers, hyperkeratosis, leukoplakia, cheilitis, lupus, lymphangitis, malignant neoplasms. Develops after 1-12 months after irradiation.

Clinic: may be accompanied by dryness, burning of the mucous membrane, multiple telangiectasias, desquamation of the epithelium, possibly the formation of radial erosion. Often react areas where the epithelium is not coarsen.

Treatment involves increasing the body's resistance, the elimination of traumatic factors.

in individuals exposed to prolonged adverse weather factors. Red hyperemic rim lips, slightly infiltrated, sometimes formed more or less firmly seated scales. The emergence of it promotes near focused radiotherapy, used for tumors of the maxillofacial area.

leukoplakia (varicose)

On the surface of the plaque:

warty growths above the level of mucosal

shell 'symptom cobblestones "

Erosive-ulcerative leukoplakia (leucoplakiaerosiva)

- Warty growths between bleeding, poorly healing fractures, erosions, ulcers.

Erosive-ulcerative form of lichen ruberplanus (LCP). Erosions covered with fibrinous coating or "naked" painful bloodiness, Around of it stored image of the CPL.

Hypercritical form KPL. Strongly expressed giperkeratoz. Papuly coalesce into large plaques covered with folded horn weighs. Around they found popular eruption of the CPL.

Erosive-ulcerative form and hyperkeratotic forms of lupus erythematosus characterized by severe inflammation, painful erosions, ulcers, fissures, which can be seen around the wound remain giperkeratoz. Posle atrophy and scarring.

Prevention of precancerous illness. It should be eliminated chronic, traumatic

factors, prompt treatment of systemic diseases and mouths. The most value is the mass of sanitary-educational work among the healthy contingent of people, as well as among patients who seek help for medical dentist. The duty - Early diagnosis of precancerous diseases, cancer help. The treatment organization without a diagnosis must not be more than 7 days. After the treatment of precancerous diseases, patients must be on active surveillance.

**Used in this lesson, new teaching technologies: business game "dark horse "**

### **USE OF "dark horse" METHOD OF PROVIDENCE:**

The methodology of the business game "Dark Horse"

The method provides for joint activities and actively participate in classes each student, the teacher works with the entire group.

Requires:

Printed on a sheet options issues.

2 Total Numeric variants issues.

3 Numeric to draw students.

Progress:

1. The group is divided by lot into 2 pogruppy.

2. From each group, one student coming to the teacher selected number of issues and options are protocol sheet.

3. In each sub-protocol is written on a sheet date, group number, name of the game, the subject of training.

4. At the discussion the students given 5 minutes, then they start for the contest.

5. Of the 2 subgroups of -1 will force the issue, the second answer.

6. In the subgroup of defining the issues selected three consultants: 1 - sets questions 2 - notes on a sheet count of correct answers, 3 - monitors time.

7. Corresponding to the subgroup for 10 min. must as soon as possible to answer more questions.

8. The teacher monitors the correct answers.

9. Each correct answer is estimated to be 3.1 points. On count correct answers the whole group gets the same score.

10. Students then 2nd subgroups start to ask questions of version 1.1 of the subgroup students

11. At the end of the competition and take stock of at least 15 minutes. discussed questions.

12. The resulting score of the students is taken into account in the current rating classes.

13. Minutes of the game are stored in the teacher group.

### Options questions:

1 option

1. Varianty ceratoakantomy outcome.
2. Differential diagnosis of keratoakantomy.
3. Treatment of keratoakantomy.
4. Facultative precancerous processes OGAN

2 - an option.

1. Facultative precancerous processes CGC
2. Clinical examination of leukoplakia.
3. Luminescent method for diagnosis of leukoplakia.
4. Signs of cutaneous malignancy.

3-option

1. Pathology of cutaneous horns.
2. Treatment of cutaneous horns, papillomas with keratinization papillomatosis.
3. Differential diagnosis of papilloma.
4. Signs of leukoplakia.

4 variant.

1. Clinical signs of malignancy leukoplakia.
2. Differential diagnosis of hyperkeratotic form of CPL.
3. Treatment of verrucous and erosive and ulcerative forms of leukoplakia.
4. Treatment of lichen planus and lupus erythematosus.

### Answers:

1 option

1. The tumor regressed either spontaneously and disappears, leaving atrophic pigmented scar or badly qualified, turning into cancer.
2. Differential diagnosis is carried out with a contagious molluscum (multiple nodules of yellow color with a slight retraction of flakes, ), with cutaneous horn with squamous cell carcinoma (bleed when touched, is localized in critical holes), with warts, warty precancer common wart.
3. Treatment-conservative (50% of applications ointment, 5% ointment ) radiotherapy, surgical excision.
4. Leukoplakia (erosive), papillomatosis, erosive-ulcerous and hyperkeratotic form of lupus erythematosus and lichen planus, stomatitis.

2-version

1. Leukoplakia, keratoakantoma, cutaneous horn, papillomas with keratinization, erosive and ulcerative forms and hyperkeratotic lupus erythematosus and lichen planus.
2. In the flat form of leukoplakia patients examined by a dentist again after 1.5-2 months after detection of the disease. If you revisit the hearth leukoplakia disappeared, there was no exacerbation and relapse, such patients are removed from the register. With the progression of the process, torpid course of disease patients leukoplakia, especially with verrucous and erosive and ulcerative forms are dynamic monitoring every 3-4 months over the next 3-5 years.
3. Luminescent method consists of observing the secondary radiation of tissue irradiated ultraviolet in a dark room with a 10-15 min. Used disposition to the

differentiation of certain types of keratosis, refine the shape and phase. Slick leukoplakia gives a bright blue glow in the rays of the Wood veracious leukoplakia - an intensive luminescence of tissues with a yellowish tinge, erosive-ulcerous form of leukoplakia gives a brown glow in the phenomena observed malignancy purple glow.

4. Priznak malignancy-development at the base of the horns of inflammatory infiltration, increased orogoveniya. diagnosis can be obtained after removal of the source and its histological

3-option

1. Cutaneous horn is a limited hyperplasia of the epithelium red border, with a thick layer of horny skin mass. Epithelia at the base of the horns is in a state of hyperkeratosis, acanthuses uneven, often with signs of atypia.

on active surveillance

2. Treatment consists in the timely prevention of injury of the mucous membranes of the mouth: smoking, hot and spicy foods, low-quality prostheses, the sharp edges of the teeth, galvanic currents, with malignancy: surgical excision, within a healthy tissues. For reactive papillomatosis eliminate the causative factor with excision of tumor-normal tissue within ..

3. Conducted with warty precancer wart, cancer.

4. The symptom of "tissue paper" - kind of element in the defeat of the flat form of leukoplakia, a symptom of "cobblestones" - the kind of leukoplakia on the background of the folded tongue, buccal mucosa folding.

4-option

1. Strengthening the process of keratinization, the rapid increase in the size and density of the source, the appearance of seals at the base of plaques, erosions, papillary growths on the surface erosion, bleeding in trauma, the emergence of non-healing fractures.

2. Should be distinguished from verrucous leukoplakia and cancer.

Verrucous leukoplakia 3. Pri performed under blockade of the lesions by 5% solution or dilagilahonsurida (0.05 g of the substance is dissolved in 2-3 ml of 0.5% Novocain) at 2-2.5 ml. Injections are carried out through the day, the course of injections 8.6.

-In the form of erosive leukoplakia used cerotoplastic means: give a good effect Solcoseryl adhesive paste application on 20 minutes 3-4 times a day for 7-10 days.

4. Planus-Vit A, 10 drops 3 times a day with meals for 1.5-2 mess Local: application of oil p-ditch vitamins A and E, karotolina, ointments with corticosteroids, honsurid (in the form of applications 2.3 twice daily injections of 1 ml or under the elements of destruction through a day. the limit of erosion (ulcers) and hyperceronic homes, long-term is not curable, are subject to excision of an urgent histological examination.

Red. Treatment complex: anti-malarial drugs, hangman (delagil, rezohin) inside of 0.25 g 2 times a day (at an average rate of 20 g) or in the form of injections 5-10% app. 1-3 ml in 1-2 days after the acute inflammation subsided into appearance. In the same time kortikostiroidy is given: dexamethazone 10-15 mg per day, a complex of B vitamins, niacin.

## 6.2. ANALYTICAL PART

Case number 1 problem

Patient 47 years of extraordinary growth complains on his lower lip.

OBJECTIVE: on the lower lip on the right there is growth on the stem mushroom shape, size 5 mm, whitish color.

Place the diagnosis, justify it.

Answer: papilloma with keratinization. If you have foot warts-diagnosis is not difficult.

Situational problem number 2

Patient 43 years. Complains for unusual growths on the buccal mucosa.

Of history: The patient is newly-prosthetic dentures

Objective: to the right cheek mucosa in the area due to the long retromolar injury as a result of wrong prosthetic found four small rounded nodules on a broad basis to 0.5 cm in diameter, the color of normal mucosa, painless.

Place a diagnosis.

Answer: papillomatosis of the oral mucosa.

Situational problem number 3

The patient complained of burning sensation, dry mouth, a small illness. From the history: the patient was carried out 2 years ago radiotherapy erosive form of leukoplakia of the lower lip.

OBJECTIVE: marked dry lips, peeling, uneven coloring, marbling (rich areas of hyperemia alternated with pale).

Place a diagnosis.

Answer: cheilitis

Situational problem № 4

The patient complained of burning, dryness of the oral mucosa

Of history: the patient spent 6 years ago radiotherapy floor of the mouth.

OBJECTIVE: mucosa is dry, there are multiple teleangiectasias, pockets of membranous leukoplakia.

Place a diagnosis.

Answer: stomatitis.

Situational problem number 5

Patient 65 complained of dry mouth, cracks on the lower lip sore from all types of stimuli.

OBJECTIVE: lower lip macerated, see the extended mouth of the salivary glands as red dots, which stand out from the drops of saliva, "a symptom of dew."

According to the midline of the lower lip is hyperkeratotic spot, resembling a thin cigarette pasted paper. Around-spot erosion.

Put a diagnosis and clarify it.

A: Erosive-ulcerative form of leukoplakia in the diagnosis of glandular leukoplakia. Support primary element of the lesion-h spot, resembling a thin piece of

tissue paper pasted.  
hypercerotic. Situational problem number 6

Patient 60 years with complaints of pain when eating, burning  
Objective: to retromolar region hyperemic and edematous mucosa of the mouth  
are painful erosion, according to the patient, long-existing, not epithelized. Around  
of them are laid out in a lacy net horny papule. Put a diagnosis and clarify it.

Answer: lichen planus erosive and ulcerative form. Supported diagnosis are horny  
papules with a lacy pattern.

Situational problem number 7

To the doctor asked the patient with a painless formation on red border inspection  
lips. For red border on the lower lip has a grayish-red nodule with a funnel-shaped  
hollow in the center, filled with horny easily deleted masses. For palpation: a  
painless, mobile, surrounding tissues.

Place a diagnosis ..

Answer: Keratoakantoma.

Situational problem number 8

Inpatient 68 years ago on the lower lip appeared a little limited education, painless,  
gray in color, diameter 0.8 cm, height 0.5 cm, in appearance resembling a  
mechanical trauma. After redness, indurations at the base, increased cornification  
and soreness.

Place a diagnosis.

Answer: Skin rog. Protsess malignancy.

#### Tests

1. For optional precancer of the oral mucosa does not apply:
  - A) Bowen's disease
  - B) leukoplakia
  - B) stomatitis
  - D) lichen planus
  - D) lupus erythematosus
2. Risk factor for elective prefacers is not:
  - A) diseases of the circulatory system
  - B) injury
  - B) smoking
  - D) age
  - D) gastro-intestinal tract
3. In the local treatment of precancerous prefacers electives not used:
  - A) ointment
  - B) an oil solution vitamin
  - B) with corticosteroid ointment
  - D) ointments with antibiotics
  - D) Solcoseryl
4. For ceratoacantomy not characterized by:

- A) symptom Pospelova
  - B) The localization of the lip, tongue
  - B) a tight knot with funnel-shaped hollow in the center.
  - D) the spontaneous disappearance
  - D) filling the horny masses
  - 5. Cutaneous malignancy horn appears:
    - A) seal around the base
    - B) painlessness
    - B) softening of the base
    - D) increase in length of up to 2cm
    - D) the appearance of the mucous membranes of the mouth.
  - 6. Keratoakantom differentiated from:
    - A) cancer
    - B) heylita Manganotti
    - B) herpetic erosions
    - D) pemphigus
    - A) erythema multiform.
  - 7. For the diagnosis of precancer optional applied research
    - A) Histological
    - B) The cytological
    - B) microbiological
    - D) Biochemical
    - A) sample Schiller-Pesaro
  - 8. The tactics of a dentist if you suspect the patient has an optional precancer
    - A) to consult with an oncologist
    - B) The medical consultation
    - B) Consultation endocrinologist
    - D) bacteriological examination
    - D) biochemical research.
- The correct answer :1-A ,2-A ,3-A ,4-A ,5-A ,6-A ,7-A ,8-A

### **6.3. The practical part**

Execution of manual skill. (step by step)

Skill Manual "Methods of examination of the patient with an optional precancerous mouth."

Purpose: To teach students the methods of examination of the patient with an optional precancerous mouth. "

Indications: Diagnosis of diseases OCAN.

Equipment: safety glasses, rubber gloves, a mask, the thematic patient (volunteer), tools for exploring the oral cavity

List of manual skills on the topic: "Methods of examination of the patient with an optional precancerous mouth."

1. Wear protective equipment.
2. Conduct a visual inspection the patient.
3. To inspect the vestibule of the oral cavity (with serried jaws)

4. To inspect the actual oral cavity (tongue, cheeks, palate)
5. Palpate the salivary glands

Skill Manual Methods of examination of patients with precancerous oral optional. "

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Wear protective equipment	0	10	20
2	Conduct a visual inspection the patient	0	10	20
3.	To inspect the vestibule of the oral cavity (with serrated jaws)	0	10	20
4.	To inspect the actual oral cavity (tongue, cheeks, palate)	0	10	20
5.	Palpate the salivary glands	0	10	20
	Total:	0	50	100

### 10. Study Questions

1. Classification of elective processes of precancerous oral mucosa and lips red border.
2. Features of clinical manifestations ceratoacantomy.
3. Cutaneous horn. The clinical picture
4. Papilloma with keratinization. Papillomatosis. The clinical picture.
5. stomatitis. cheilitis. The clinical picture
6. The clinical picture of verrucous and erosive-ulcer leukoplakia.
7. The clinical picture of erosive-ulcerous and hyperkeratotic forms of lichen ruber planus and lupus erythematosus at OGAN and CGC.
8. Prevention of precancerous diseases.

## LESSON № 15

**THEME: «Galvanization. Technique & methods of application. Medicinal electrophoresis. Impulsive current. Forms of impulse & their descriptions (characteristics).».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Department of Dentistry,
- Physiotherapy room
- Apparatus for galvanization and drug electrophoresis:
  - \* Galvanization wall (AGN-32)
  - \* Electroplating apparatus portable (PATs - 33)
  - \* "Flow-1"
- Essential drugs (rematerializing fluid)
- Dental chair, a set of tools. Tests, case studies, slides, tables, and video.
- TCO: slide scope, TV-video

### 2. DURATION OF STUDY SUBJECTS

Hours - 297 minutes

### 3. SESSION PURPOSE

To familiarize students with basic concepts of electric current as a physical factor that is applied in medical practice.

- The principles of physical therapy equipment used in dentistry.

#### **Tasks:**

#### ***The student should know:***

- Techniques and methods of physical therapy with electrotherapy in Dentistry.
- The indications and contraindications to the use of electric current.

#### ***The student should be able to:***

- rationally choose the required physiotherapy for each a specific disease.
  - Carry out electrophoresis, ulyrafonoforez, darsonvalization, etc..
  - have physical therapy techniques to treat OCAN.
- to have private and local techniques of electrophoresis correctly assign to the testimony of the dosage, time and place of the impact of electric current.

#### 4. MOTIVATION

The student should know that physical therapy appointment for an electric current to the diagnosis, to know the principles of electrical current indications and contraindications for its intended purpose, on the basis of this method to pick up physiotherapy electric shock, given the diagnosis of drugs to choose, the methods of their introduction.

#### 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students anomalies, biochemistry, pathophysiology, allergy, pharmacology, and chemistry.

#### 6. CONTENT OF CLASSES

##### 6.1. The theoretical part

Galvanizing - the use of continuous direct electric current of low voltage (30-80V) and low power (50 mA) for therapeutic purposes, In the tissues under the influence of a constant electric current (PET) is a series of changes leading to the creation of new conditions for the flow of various biochemical and physical processes.

Since the the human body consists of almost 60% of the water, then it can be considered an electrolyte having ionized molecules of different chemical compounds. With the passage of PE1 ions, water molecules and charged protein particles move in the interelectrode space: positively charged particles - to the cathode, and negatively - to the anode.

Under the influence of PEG in the skin and mucous membranes of the blood vessels dilate, blood flow is accelerated and there is congestion, increased vascular permeability, increased local temperature. The circulation, helps to activate the reaction of metabolism, the regeneration of the epithelium and connective tissue. Medicinal electrophoresis - the combined effect of PET and drug entered through it.

This method relates to the ability of complex substances dissociate in the solvent at the positive and negative ions, which when placed on the electrode solution allows the introduction of charged particles in the tissue.

At the same time are found ions with the same name with the electrode polarity, which accumulate in the skin, forming a depot. In addition to the skin, can be formed tissue depots. Due to the low blood supply to the skin, slowly dissolving ion depot.

Providing a constant supply of the drug in the blood. Although the amount of incoming material into the blood by this method is low.

However, the high local concentration, increased electrical activity of the ions, biophysical and biochemical changes in tissues caused by the constant current. Contribute to the expressed pharmacotherapeutic effect.

Electrophoresis to minimize the side effects of medication, as introduced into the tissue just needed his constituents. The health effect of electrophoresis, in addition to the parameters of the DC is set to the location of the electrodes, the impact area and the functional state of the organism, as well as the pharmacological properties of drug substance, its concentration, the individual human sensitivity to the drug and an electric current.

Studies have found that the linear dependence of ion imposed on the solution concentration is only at low concentrations of the solutions. Therefore, the electrophoresis is recommended to use 2-6% p-ry drugs.

Moreover, the author believes that the optimum concentration for most substances lies in the range) of 1-3%.

The advantage of electrophoresis is that it can be used to introduce medicinal substance in the tissue inaccessible to other methods of selection. In particular in dentistry can be performed electrophoresis in the tissue of enamel, dentin, pulp and periodontal teeth with impassable channels.

Contraindications to electroplating or electrophoresis are acute inflammation, particularly septic processes, and malignant neoplasms. Cardiac decomposition, marked sclerosis of the vessels of the brain, epilepsy, acute diseases of the skin, toxic states, a tendency to bleeding, hypersensitivity to the drug to the destination. To conduct galvanization and drug electrophoresis using different models of machines: machine galvanized wall (AGN-32) electroplating apparatus portable (AGP-33), "Potok-1", "Potok-2", galvanization oral (GR-1M, GR-2).

Elektricity education PET - pain relief associated with the development of tissues electro tonus phenomena that cause changes in the excitability of the nerve during the passage of current. In connection with the phenomenon of physical and physiological electron elektropainless used for PET as a positive and a negative pole, but preference is given to the positive. The optimal parameters of the current strength in the direct effects on the receptor are in the range of 10 to 20 mA. PET force more 30mkA result in damage to the pulp and subsequent necrosis. Apply for dissection of the cavity, a tooth for a crown, the opening of the cavity of a tooth in pulpitis. Young people expressed more galvanonarcosis than in the elderly.

To conduct applied electric dental ELOZ-1-2 ELOZ.

Biodynamic - the impact of the constant pulse current

half-sine shape prolonged exponentially falling edge at 50 and 100 Hz, and their

various combinations. Apply with lesions of trigeminal and facial nerves, paresis and paralysis of the soft palate, tongue, floor of the mouth muscles, bruises, sprains of the muscles, ligaments, and painful, with pain syndromes, periodontitis, pulpitis, periodontitis, alveolitis and other acute inflammatory conditions. To conduct diadynamic therapy devices used SNIM-1, tone-1, tone-2.

SINUSOIDADNYE MODULAR CURRENT (SMC) - is the impact of varying sinusoidal current with a carrier frequency of 5000 Hz, modulated in amplitude in the range of 10 to 50 Hz. CMT - therapy is indicated for disorders of the peripheral circulatory functions of the neuromuscular system, trophic tissue, chronic inflammatory processes, trigeminal neuralgia, the consequences of injuries of the maxillofacial area, and periodontal disease, periodontitis.

Contraindications - cancer, cardiovascular decompensation, acute infectious diseases.

EELKTRODIAGNOSTIKA - a method for studying nerve and muscle electrical discharge. In dentistry, used electric pulp test (EDI)-check electroexcitability nerve receptors of the dental pulp. It is established that the pulp intact healthy teeth respond to the current in the range from 2 to 6 mA. With the defeat of the coronal pulp threshold of excitability within 7 -60 pA, root pulp - 60 - 100 mA. Reduction of excitability to 101-200 mA occurs at the death of the pulp and periodontal receptors react. With periodontal disease, neuritis sometimes marked increase in the excitability of up to 1.5 - 0.5 mA. To apply for EDI devices EOM - 1, EOM-3, EDI - 2M.

### **Used in this lesson, new technology method**

#### **"Snowballs"**

The method can be used as a first stage of training.

Split the group into 2 mg (2 teams), each team choose a leader. Invite each team to prepare for another team to three questions relating to the subject of an occupation in the preparation of questions should be prepared and its response to the question. The preparation of the issues is given 7-8 minutes.

The leader of each team selects the best (most interesting and important) issues of the proposed options. Upon completion of training issues, team alternately ask each other questions. The preparation of an answer given 1 min. And then for 1-2 min. sets out the answer to the question (all costs are controlled by time teacher). If the team asked the question does not agree with the above answers, it offers its own version.

After each "question-answer" teacher quality comments and questions and answers. The protocol class rating of a question, answer and complement.

In assessing the quality issue is taken into account to comply with the theme, concreteness, originality, scientific literacy of presentation, relevance (5 points) in evaluating the answer - the accuracy, completeness, conformity to the topic, the scientific literacy of presentation, clarity (5 points). For his answer put an additional point: the right, a significant addition - 1 point, a small addition from 0.1

to 0.5 points, incorrect addition (-) 0.5 points.

All of the discussion shall be entered in the record on the form:

1 Team 2 Team

: Evaluation in points

Question number

: \_\_\_\_\_

: Question answer supplement: question answer supplement

In summarizing the teacher sums up all the points scored by each team, and divide the sum by 6 (3 questions and 3 answers).

The calculated value will be an average rating of team members. A higher score (above 0.5) exhibited the most active members of the team, passive students punished by a fine (-0,2-0,3).

Variants of questions:

1. What is galvanizing?
2. What is electrophoresis?
3. Indications for electrophoresis?
4. Why do I need to know the polarity of the drug?
5. Apparatus for electrophoresis,
6. Tell us about the safety precautions that must be followed when working with electrical equipment.
7. What is CMT - Therapy?
8. What is diadynamic

## **6.2. ANALYTICAL PART**

### **TESTS**

1. The use of continuous and constant low voltage and low intensity for therapeutic purposes is:

A galvanizing

B. darsonvalization

B. electro sleep

G. fluctolization

D. diathermy

2. Used for galvanizing apparatus:

A. GR-2

B. EOM -3

B. SNIM-1

Mr. Spark -1

D-Ray-2

3. Elektropainless performed by

A. ELOZ-1

B. EOM -3

B. SNIM-1

Mr. Spark -1

D. Ray -2

4. Elektropainless performed by  
 A. ELOZ-1  
 B. EOM -3  
 B, SNIM-1  
 Mr. Spark -1  
 D. Ray -2
5. The unit of GR-1 and GR-2 is used for  
 A galvanizing  
 B. darsonvalization  
 In, electric  
 G. fluctolization  
 D. amplipulse
6. Apparatus "Potok-1" is used  
 A medicinal electrophoresis B. darsonvalization  
 B. electrosleep  
 G. flyuktuolizatsiya  
 D. amplipulse
7. NAIS-3 apparatus used for  
 A. electropainless  
 B. darsonvalization  
 B. electro sleep  
 G. D. fluctolization amplipulse
8. Galvanizing is carried out  
 A tap water  
 B, enzyme  
 B. antibiotics  
 Mr. drugs nitrofurans series  
 D. Gemodeza

### 6.3. The practical part

#### Manual skill number 5

#### Electrophoresis of the root canal

Objective: electrophoresis of root canal patients.

Indications: The use of physical methods of treatment.

Equipment: dental chair, dental standard set, the unit of GR-2, flannel pads, sticky wax, lead to the active electrode, medicines.

#### Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full

1.	Expansion of the mouth of the inlet into the root canal.	0		15
2	If possible, expand the root canal medication to handle, drain.	0		10
3.	Isolation of the tooth from saliva	0		15
4.	2 cm of copper wire is cleaned, wool soaked in a solution treatment and introduced into the channel.	0		10
5.	Carious cavity is filled with wax.	0		10
6.	10 cm of the second side of the wire is cleaned and attached to the unit GR-2, the indifferent electrode put on the outside of the wrist.			15
7.	Give a current of 3 mA until the patient feels a slight tingling in the wrist and the tooth, the procedure further 20 min.			15
8.	After the end of the procedure slowly turn off the unit.			6
9.	The electrodes are put into sterilized			4
	Total:	0		100

### 10. Study Questions

1. What is galvanizing?
2. What is electrophoresis?
3. Indications for electrophoresis?
4. Why do I need to know the polarity of the drug?
5. Apparatus for electrophoresis.
6. Tell us about the safety precautions that must be followed when using < electrical equipment,
7. What is CMT - Therapy?
8. What is diadynamic?

## LESSON № 16

### THEME: «High frequency alternating currents. Diathermocoagulation.Darsonvalization.».

#### 1. PLACE OF CLASSES, EQUIPMENT

- Department of Dentistry.
- Physiotherapy room.
- Textbooks, information from the Internet, magazines, atlas and tables.
- Equipping the workshops with slides, thematic posters.
- Dental chair, a set of tools.
- Tests, case studies, slides, spreadsheets, video.
- TCO: slide scope, TV-video.

#### 2. DURATION OF STUDY SUBJECTS

hours - 297 minutes

#### 3. SESSION PURPOSE

To familiarize students with basic concepts of electric current, as physical factor that is applied in medical practice.

- The principles of physical therapy equipment used in dentistry.

##### **Tasks:**

##### ***The student should know:***

- Techniques and methods of physical therapy with electrotherapy in dentistry.
- The indications and contraindications to the use of electric current.

##### ***The student should be able to:***

- Rationally choose the required physiotherapy for each the disease.
- To carry out electrophoresis, phonophoresis, darsonvalization, etc..
- To own physical therapy techniques to treat OCAN.
- The correct administration of the dosage indications, time and place of exposure an electric current.

#### 4. MOTIVATION

The student should know that physical therapy appointment for an electric current to the diagnosis, to know the principles of electrical current indications and contraindications for its intended purpose, on the basis of this method to pick up physiotherapy electric shock, given the diagnosis of drugs to choose, the methods of their introduction.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students anomalies, biochemistry, pathophysiology, allergy, pharmacology, and chemistry.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

Darsonvalization - the application of pulsed high-frequency alternating current (100-300 kHz) high voltage (20 kV) and low power (0.03 mA) with curative intent. In dental practice, used only the local domain structure.

Assign DS in wounds and ulcers. jaw fractures, periodontal disease. Acute arthritis, TMJ, periodontal, and hypertrophic catarrhal gingivitis, HRASe, the typical form of the CPL, glossalgii, trigeminal neuralgia.

Contraindications for the DS are malignant neoplasms, PRS, bleeding tendency, active tuberculosis.

To use the device for DS ISKRA-1.

Diathermy - the use of an alternating current of high frequency (1-2 MHz), high voltage (150-200 V) and high power (2A) with curative intent.

In dentistry today is almost never used due to the lifting apparatus of production, but it applies diathermocoagulation.

Diathermocoagulation - is used for coagulation of the contents of the root canal, with pulpitis or periodontitis, removal of small benign tumors of the oral mucosa (papillomas, fibromas, epulida, etc.) of granulation tissue from pathological gingival pockets.

Contraindication is intolerance to PRS and current.  
For VCT apparatus used DCS-2M, DC-3, ES-30.

Methods of treatment of pulpitis with VCT.

Under the conduction and infiltration anesthesia open tooth cavity with boron and an excavator removed the coronal pulp, then the active electrode from apparatus CS-2M in the form of a needle and pushed into the root canal within 2 sec., Then within 2 seconds. is removed from the channel - during this time is spent diathermocoagulation. The coagulated slurry was removed broach. If the canal of the tooth moist, then it is treated with hydrogen peroxide and dried, then sealed.

**Used in this lesson, new technology method**

**"Snowballs"**

The method can be used as a first stage of training.

Split the group into 2 mg (2 teams), each team choose a leader. Invite each team to

prepare for another team to three questions relating to the subject of an occupation in the preparation of questions should be prepared and its response to the question. The preparation of the issues is given 7-8 minutes.

The leader of each team selects the best (most interesting and important) issues of the proposed options. Upon completion of training issues, team alternately ask each other questions. The preparation of an answer given 1 min. And then for 1-2 min. sets out the answer to the question (all costs are controlled by time teacher). If the team asked the question does not agree with the above answers, it offers its own version.

After each "question-answer" teacher quality comments and questions and answers. The protocol class rating of a question, answer and complement. In assessing the quality issue is taken into account to comply with the theme, concreteness, originality, scientific literacy of presentation, relevance (5 points) in evaluating the answer - the accuracy, completeness, conformity to the topic, the scientific literacy of presentation, clarity (5 points). For his answer put an additional point: the right, a significant addition - 1 point, a small addition from 0.1 to 0.5 points, incorrect addition (-) 0.5 points.

All of the discussion shall be entered in the record on the form:

1 Team	2 Team
: Evaluation in points	

Question number

: \_\_\_\_\_

: Question answer supplement: question answer supplement

In summarizing the teacher sums up all the points scored by each team, and divide the sum by 6 (3 questions and 3 answers).

The calculated value will be an average rating of team members. A higher score (above 0.5) exhibited the most active members of the team, passive students punished by a fine (-0,2-0,3).

Variants of questions:

1. What is diathermy?
2. What is darsonvalization?
3. Indications for darsonvalization.
4. Apparatus for use darsonvalization.
5. Indications for diathermocoagulation.
6. Apparatus for diathermocoagulation.

## **6.2. ANALYTICAL PART**

### **TESTS**

1. When vital extirpation sometimes made
  - A. diathermocoagulation
  - B. elektroobezbolivanie
  - B. darsonvalization
  - G. UHF therapy
  - D. SMT Therapy

2. Darsonvalization carried out using apparatus

- A spark of -1
- B. RAY -2
- B. CRS -2-1
- G. EOM-3M
- D. INNAAN -3

3. Iskra-1 device is used for

- A. darsonvalization
- B. CMT therapy
- B. flyuktuolizatsiya
- G. diathermocoagulation
- D. UHF therapy

4. Darsonvalization not apply at

- A. pulpitis
- B. periodontitis
- B. periodontitis
- G. catarrhal gingivitis
- D. hypertrophic gingivitis

5. Diathermocoagulation not carried out at

- A CLO
- B. gastrointestinal diseases
- V. Diseases of the nervous system
- Mr. SD
- D. pregnancy

6. Contraindications for darsonvalization

- A. Active tuberculosis
- B. HRAS
- B. the typical form of the CPL
- G. trigeminal neuralgia
- D. hypertrophic gingivitis

### **6.3. The practical part**

#### **Manual skill**

#### **Conducting diathermocoagulation dental pulp.**

Objective: Application of the method of electrophoresis in patients.

Indications: The use of physical methods of treatment.

Equipment: chair, drill, dentist's standard set, filling materials for root canal, permanent filling, endodontic instruments, apparatus CS-2M, wool, rollers, 3% sodium hypochlorite

**Following the steps:**

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Carrying out wiring or local infiltration anesthesia.	0		10
2	Reveal the cavity of the tooth and with the boron or shovel to remove the coronal portion of pulp.	0		10
3.	Insulate the tooth from saliva, prepare to work the machine BS-2M	0		6
4.	Determining the length of the channel by means of X-rays, the introduction of a needle into the canal.	0		14
5.	The needle stays in the channel 3 seconds, the current 6-8A	0		10
6.	Remove the coagulated slurry pulpec tractis.			10
7.	Canal medication process a 3% solution of sodium hypochlorite.			6
8.	Extend the channel by using a size 3.			14
9.	Fill the channel to put a permanent seal.			20
	Total:	0		100

## 10. Study Questions

1. What is diathermy?
2. What is darsonvalization?
3. Indications for darsonvalization.
4. Apparatus for use darsonvalization.
5. Indications for diathermocoagulation.
6. Apparatus for diathermocoagulation.

## LESSON № 17

**THEME: «Phototherapy. Balneotherapy (Hydrotherapy). Paraffin therapy in maxillofacial region diseases.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Department of Dentistry.
- Physiotherapy room.
- Textbooks, information from the Internet, magazines, atlas and tables.
- Equipping the workshops with slides, thematic posters.
- Dental chair, a set of tools.
- Tests, case studies, slides, spreadsheets, video.
- TCO: slide scope, TV-video.

### 2. DURATION OF STUDY SUBJECTS

hours - 297 minutes

### 3. SESSION PURPOSE

To familiarize students with basic concepts of electric current, as physical factor that is applied in medical practice.

- The principles of physical therapy equipment used in dentistry.

#### **Tasks:**

#### ***The student should know:***

- Techniques and methods of physical therapy with electrotherapy in dentistry.
- The indications and contraindications to the use of electric current.

#### ***The student should be able to:***

- Rationally choose the required physiotherapy for each the disease.
- To carry out electrophoresis, phonophoresis, darsonvalization, etc..
- To own physical therapy techniques to treat OGAN.
- The correct administration of the dosage indications, time and place of exposure an electric current.

### 4. MOTIVATION

The student should know that physical therapy appointment for an electric current to the diagnosis, to know the principles of electrical current indications and contraindications for its intended purpose, on the basis of this method to pick

up physiotherapy electric shock, given the diagnosis of drugs to choose, the methods of their introduction.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students anomalies, biochemistry, pathophysiology, allergy, pharmacology, and chemistry.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

With the purpose of treatment is used the entire electromagnetic flux from 1 micron to 760 nm,

but the most widely used infrared (400-760 nm) and ultraviolet (400 - 180 nm) radiation.

Infrared rays penetrate the tissue to a depth of 14 mm and absorbed.

Electromagnetic energy is converted into thermal energy.

Vasodilation occurs, the acceleration of blood flow, there is congestion, increased tissue permeability and electrical conductivity, metabolism, phagocytosis, etc.

The infrared rays stimulate repair processes in damaged tissues, relieve spastic condition and pain, improve tissue metabolism.

They are shown in chronic inflammatory processes of maxillofacial area (CHLO) as well as to accelerate acute suppuration, in post-traumatic period, with burns and frostbite.

Used to irradiate the electric incandescent lamp "SoLux" board LPC-1, SPE-70 or LPS-4 portable infrared irradiators and LIC-5, which include warm up for 1-2 minutes.

Patient safety glasses seated at a distance to feel a pleasant warmth, usually 50-100 cm lamp placed at the side of the patient at the level of abnormality. Duration of exposure of 20-40 min. In the course of treatment prescribed to 20 actions, carried out every day or two.

To localize the effects of the lamp "SoLux" tube can be worn with protective netting localizer.

Ultraviolet radiation (MI):

Ultraviolet rays penetrate the tissue to a depth of 0.6-1mm and are absorbed mainly the epidermis of intact skin. Because of their high energy photons in the tissue are activated and the transition of atoms to a higher level, which explains the pronounced photochemical effect of ultraviolet rays. Direct action causes the denaturation and subsequent coagulation of the protein, since its enzymatic cleavage leads to the formation of biologically active substances (histamine, acetylcholine, etc.).

Ultraviolet radiation is shown in acute, including purulent inflammatory processes

of maxillofacial area, ulceration of the mucous membranes of the mouth, pain with periodontal disease, trauma, soft tissue and jaw, to prevent tooth decay, or erysipelas, acne.

Contraindications are cancer, blood disorders, lupus erythematosus, the lack of CAS, endocrinopathy, active pulmonary tuberculosis.

Technique and methods of UV radiation:

Choose a tube to the radiator or OH-7-5m OKUF corresponding to the size of the abnormality.

The apparatus includes, heated and placed the patient in front of him. connected via a tube and is supplied to the fire as close as possible, and touching the mucous membrane, and the irradiation within the required time.

The location of the beam tube and control in the mirror irradiator. In the course of treatment prescribed from 3 to 10 actions, every day or two.

Paraffin - a white crystalline substance consisting of high-molecular hydrocarbons, with a melting point of 50-55C and boiling point of about 350S. When heated above 100C it is oxidized by atmospheric oxygen. Paraffin has a large heat capacity, heat conductivity and low due to lack of water and the convection is well tolerated by tissues.

In the mechanism of paraffin playing a dominant role release of heat expended in its melting and heating of tissues. Local temperature rise reaches 45C, and the absence of heat transfer leads to a deep heating of tissues, which causes flushing, vasodilation, the acceleration of blood and lymph circulation, increasing permeability of tissue membranes, metabolism, activation of phagocytosis and regeneration of damaged tissues. Removed muscle tone and excitability.

These phenomena occur not only at the site of impact, but also in the symmetric and segmental areas, indicating that the neuron-reflex mechanism of action.

In addition, freezing, paraffin is reduced in volume by 10-12%, resulting in a soft, gentle compression of the underlying tissues. It is believed that existing in paraffin oil (0.5-0.9%) may have a chemical effect.

The indications for the use of paraffin is a soft tissue injury of face and jaw, chronic inflammation, periodontal disease, erosive and ulcerative lesions of the mucous membranes of the mouth, lesions of the facial and trigeminal nerve.

Contraindication to the use of thermal factors are acute thermal processes, tumors, failure of the cardiovascular system, the depletion of kidney disease, bleeding.

Technique and methods of heat treatment:

In the dental clinic the most accessible application of wax, which melted and support in this state during the working day. Use paraffin at 50-55C. Should not enter the water in the application form, as it leads to burn.

Thermotherapy session takes 20-60 minutes.

The course of treatment up to 20 procedures daily or every other day.

**Used in this lesson, new technology method**

**"Snowballs"**

The method can be used as a first stage of training.

Split the group into 2 mg (2 teams), each team choose a leader. Invite each team to prepare for another team to three questions relating to the subject of an occupation in the preparation of questions should be prepared and its response to the question. The preparation of the issues is given 7-8 minutes.

The leader of each team selects the best (most interesting and important) issues of the proposed options. Upon completion of training issues, team alternately ask each other questions. The preparation of an answer given 1 min. And then for 1-2 min. sets out the answer to the question (all costs are controlled by time teacher). If the team asked the question does not agree with the above answers, it offers its own version.

After each "question-answer" teacher quality comments and questions and answers. The protocol class rating of a question, answer and complement.

In assessing the quality issue is taken into account to comply with the theme, concreteness, originality, scientific literacy of presentation, relevance (5 points) in evaluating the answer - the accuracy, completeness, conformity to the topic, the scientific literacy of presentation, clarity (5 points). For his answer put an additional point: the right, a significant addition - 1 point, a small addition from 0.1 to 0.5 points, incorrect addition (-) 0.5 points.

All of the discussion shall be entered in the record on the form:

1 Team

2 Team

: Evaluation in points

Question number

: \_\_\_\_\_

: Question answer supplement: question answer supplement

In summarizing the teacher sums up all the points scored by each team, and divide the sum by 6 (3 questions and 3 answers).

The calculated value will be an average rating of team members. A higher score (above 0.5) exhibited the most active members of the team, passive students punished by a fine (-0,2-0,3).

Variants of questions:

1. Indications and contraindications to light therapy.
2. Indications and contraindications for paraffin.
3. The mechanism of action of laser radiation on tissue.
4. Equipment and methods of application of infrared and ultraviolet light, and laser in diseases OCAN.

## **6.2. ANALYTICAL PART**

### **Situational tasks**

1. A patient was assigned to infrared radiation. What unit is this physical method of treatment. Tactics and technique of infrared radiation works.
2. B. The patient was scheduled paraffin. Following the treatment of burns. Why did it happen. What was in violation of the paraffin technique.

## TESTS

1. What is the physical nature of light?
  - A. stream of high-frequency electromagnetic waves
  - B. electromagnetic waves microwaves
  - B. the energy flux of ionizing radiation
  - G. flux of electromagnetic waves of optical range
  
2. What are the sources of light give the ultraviolet radiation?
  - A. bulb
  - B. Fluorescent
  - V. circular tubular mercury-lamp
  - Mr. Minin Lamp
  - SoLux lamps D.
  
3. What is the basis biophysical effects of infrared radiation?
  - A. photochemical action
  - B. photoelectric effect
  - B. tonic
  - G. thermal effect
  
4. What action does not have the laser irradiation?
  - A. resolution of inflammatory changes
  - B. reduction in pain
  - B. sweating
  - Bactericidal action of G.
  
5. Under what pathological processes ultraviolet irradiation is contraindicated?
  - A. lipoma neck
  - B. Duodenal ulcer 12
  - W. burns 3rd degree
  - G. adhesions and symphysis
  - D. Acute lung abscess
  
6. What is the mechanism of paraffin?
  - A. pain reliever
  - B. resorptive
  - B. anti-
  - G. antispastic
  - D. absorbable

7. What is the melting point of wax?

- A 95-100C
- B. 60-70C
- B. 80-90S
- G. 52-55C

8. In what ways is not transferred heat from the coolant to the patient?

- A thermalconductivity
- B. Convection
- B. oxidation
- G. Friction

### 6.3. The practical part

Purpose: To teach students to carry out the method of using various physical therapy devices for treatment of OCAN.

№	Followingthesteps.	Stepisnot performed.	Step is not fully implemented.	Step is made in full
1.	Conduct a patient survey using subjective methods to determine the location of the survey and location of electrodes	0		20
2	Definition of procedures for equipment	0		20
3.	applicationofelectrodes	0		20
4.	Control of patient subjective sensations under the electrodes	0		20
5.	Removing the electrode	0		20
	Total:	0		100

### 10. Study Questions

1. Indications and contraindications to light therapy.
2. Indications and contraindications for paraffin.
3. The mechanism of action of laser radiation on tissue.
4. Equipment and methods of application of infrared and ultraviolet light, and laser in diseases OCAN.

## LESSON № 18

**THEME: «Application of physical factors for diagnostics of dental diseases (caries, pulpitis & periodontitis)».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Department of Dentistry.
- Physiotherapy room.
- Textbooks, information from the Internet, magazines, atlas and tables.
- Equipping the workshops with slides, thematic posters.
- Dental chair, a set of tools.
- Tests, case studies, slides, spreadsheets, video.
- TCO: slide scope, TV-video.

### 2. DURATION OF STUDY SUBJECTS

hours - 297 minutes

### 3. SESSION PURPOSE

To familiarize students with basic concepts of electric current, as physical factor that is applied in medical practice.

- The principles of physical therapy equipment used in dentistry.

#### **Tasks:**

#### ***The student should know:***

- Techniques and methods of physical therapy with electrotherapy in dentistry.
- The indications and contraindications to the use of electric current.

#### ***The student should be able to:***

- Rationally choose the required physiotherapy for each the disease.
- To carry out electrophoresis, phonophoresis, darsonvalization, etc..
- To own physical therapy techniques to treat OCAN.
- The correct administration of the dosage indications, time and place of exposure an electric current.

### 4. MOTIVATION

The student should know that physical therapy appointment for an electric current to the diagnosis, to know the principles of electrical current indications and contraindications for its intended purpose, on the basis of this method to pick

up physiotherapy electric shock, given the diagnosis of drugs to choose, the methods of their introduction.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students anomalies, biochemistry, pathophysiology, allergy, pharmacology, and chemistry.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

#### The temperature diagnostics

To determine the response of the tooth to thermal stimuli - one of the oldest physical methods, widely used to determine the status of the pulp. As a stimulus, using ether, but more cold or hot water, which is a stronger stimulus due to the higher heat capacity. The simplest method is to irrigate the teeth of the syringe with water. However, it is sometimes difficult to determine which tooth reacts to a stimulus. In such cases, swab moistened with cold or warm water, bring to a cavity, or applied to the tooth surface. Study of the reaction of the pulp to stimuli showed that the tooth pulp with a normal response to a significant temperature deviations. Indifferent zone (zone of the lack of response) to the incisors of 30 ° C, 50-52 ° C - a reaction to the heat, 17-22 ° C - cooling). The teeth have both cold and heat sensitivity. Appropriate response (if the heating and cooling cause a corresponding sense) indicates the normal state of the pulp. When inflammation of the pulp narrows the indifferent zone and minor variances in body temperature (by 5-7 ° C) there is already a response in the form of prolonged intense or aching pain. In addition, inflammation is noted inadequate response from the warm and cold pain occurs. Teeth with necrotic pulp to temperature stimuli do not respond.

#### Electric pulp test

Electroodontometry (electric pulp test) gives a more complete picture of the state of the pulp and the tissues surrounding the tooth. Application of an electric current is based on the well-known fact that every living tissue is characterized by irritability, or the ability to come to a state of excitement under the influence of the stimulus.

The minimum force of irritation, causing agitation, called a threshold. It is established that the presence of a pathological process in the pulp of its excitability changes. The application of electrical current to the most common diagnosis was, as his strength and duration of easily dosed, and you can use it repeatedly without fear of damage to inflict. To determine electroexcitability tooth devices are OD-2M, IVN-1-1 EOM, EOM-3, OSM-50 to determine exactly the threshold current strength. The study unit OD pulp electroexcitability-2M participating physician and

nurse. When working with the staff of OSM-50 in contrast to the OD-2M increase in current from zero to the threshold value is a smooth increase in voltage.

The study of the pulp electroexcitability devices EOM-1 IVN-1 carries a doctor.

Methodology of the study. Passive electrode in the form of a lead plate size 10x10 cm, attached by wires to the terminal apparatus, designated "+" (positive pole) is placed upon the patient's hand and fixed with a bandage. Between the electrode and the skin moist place a pad of several layers of flannel, which area should be somewhat larger than the area of the electrode. After thorough drying, the surface of the tooth with a cotton swab and applying cotton rolls begin to determine the excitability of the tooth. The end of the active electrode attached to the terminal marked "-" (negative), wrapped with a thin layer of cotton wool moistened with water and applied to the sensitive point of the tooth.

In incisors and canines are sensitive points in the middle of the cutting edge, the premolars - on top of the cheek mound, the molars - at the top of the front cheek of the hill, because of the histological structure of the tooth. In teeth with large carious cavity sensitivity can be determined from the bottom of the cavity free of decay. It should be remembered that the non-research technique can lead to significant errors. In conducting this research is usually not limited to a threshold stimulus. Having received a positive response, reduces amperage and again check the threshold of excitability. To avoid errors due to leakage current, the physician must work in rubber gloves and use plastic instead of a mirror with a spatula.

Set thresholds for the excitation of the pulp in normal and pathological conditions. Healthy teeth respond to the currents of 2.6 mA. In the early stages of tooth sensitivity tooth is unchanged. However, with an average caries, particularly in deep, the excitability of the pulp can be reduced, which indicates that morphological changes in it. Decrease to 20-40 mA electroexcitability indicates the presence of inflammation in the pulp. It should be remembered that the index does not characterize electroexcitability extent of the process. On the boundedness of the inflammatory process can be said that if a single tuber excitability is reduced, and with the rest unchanged. If the process affects the entire coronal pulp, the anxiety will be reduced to mounds of the crown. The reaction slurry at 60 mA current indicates necrosis of the coronal pulp. If there comes necrosis and root pulp, the tooth responds to current 100 mA and higher.

Normal periodontium is sensitive to the currents of 100-200 mA. When expressed morphological changes in periodontal tooth responds to the currents of 200 mA. Research has shown that the sensitivity of the pulp may be reduced in the teeth, whose function is reduced: no antagonist, standing outside the arc, with petrifikatsii pulp machines, etc. There are, by definition, electroexcitability pulp DC. The devices are quite simple: they have an electrode that is in contact with the test tooth, as well as a scale with graduations of 1 to 10. With the help of this

device can detect the presence of the pulp and its status (normal or inflamed). Normal pulp responds to current corresponding to the deflection of 1-2 division, inflammation - at 4-5, but if there is no pulp or necrotic, the tooth on the supplied current is not responding. Such devices are not accurately determine the status of the pulp, but they are simpler. It should be noted that these figures refer to the pulp of the state of permanent dentition teeth with completely formed root tip.

### Used in this lesson, new technology method

#### "Snowballs"

The method can be used as a first stage of training.

Split the group into 2 mg (2 teams), each team choose a leader. Invite each team to prepare for another team to three questions relating to the subject of an occupation in the preparation of questions should be prepared and its response to the question. The preparation of the issues is given 7-8 minutes.

The leader of each team selects the best (most interesting and important) issues of the proposed options. Upon completion of training issues, team alternately ask each other questions. The preparation of an answer given 1 min. And then for 1-2 min. sets out the answer to the question (all costs are controlled by time teacher). If the team asked the question does not agree with the above answers, it offers its own version.

After each "question-answer" teacher quality comments and questions and answers. The protocol class rating of a question, answer and complement.

In assessing the quality issue is taken into account to comply with the theme, concreteness, originality, scientific literacy of presentation, relevance (5 points) in evaluating the answer - the accuracy, completeness, conformity to the topic, the scientific literacy of presentation, clarity (5 points). For his answer put an additional point: the right, a significant addition - 1 point, a small addition from 0.1 to 0.5 points, incorrect addition (-) 0.5 points.

All of the discussion shall be entered in the record on the form:

1 Team

2 Team

: Evaluation in points

Question number

: \_\_\_\_\_

: Question answer supplement: question answer supplement

In summarizing the teacher sums up all the points scored by each team, and divide the sum by 6 (3 questions and 3 answers).

The calculated value will be an average rating of team members. A higher score (above 0.5) exhibited the most active members of the team, passive students punished by a fine (-0,2-0,3).

Variants of questions:

1. What are the physical methods of investigation should be used in the diagnosis of pulpitis?
2. What devices are used for the diagnosis of pulpitis and periodontitis?
3. Indications for therapeutic treatment of pulpitis and periodontitis?

4. What devices are used for the treatment of pulpitis and periodontitis?
5. The mechanism of action of EDI?
6. The mechanism of action EOM?
7. Contraindications to therapeutic treatment of pulpitis and periodontitis?

## 6.2. ANALYTICAL PART

### Situational tasks:

1. A. The patient complained of aching from a long, hot and cold tooth 11. On examination, deep cavities are not communicating with the cavity of the tooth, probing painless, dense bottom. The tooth is worried long. Patient A. is 8 months pregnant. Place a diagnosis. Your treatment strategy?
2. B. The patient complained of pain from the hot and cold in the upper left teeth. Teeth under crowns. Similarly, a bad tooth can not identify. The patient has a benign tumor in the head. What research methods will you use in the diagnosis?

### TESTS

1. Elektrovozбудимост slurry was determined by:

- A) EDI
- B) The EOM
- C) R
- D) sensing
- D) capillaroscopy

2. Termoodontometriya conducted by:

- A) irrigation with cold water from a syringe
- B) irrigation with hot water from a syringe
- B) the use of special apparatus
- D) attachment to the tooth swab dipped in cold water
- D) attachment to the tooth swab moistened with hot water

3. Indifferentnaya area for cutting tools are:

- A) 30 ° C
- B) 50 ° C
- B) 17 ° C
- D) 20 ° C
- D) 8 ° C

4. Reaction to heat the teeth is determined at a temperature

- A) 50-52 ° C
- B) 17-22 ° C
- In) 8-15 ° C
- F) 15-30 ° C
- A) 30-40 ° C

5. Reaction to cold for the teeth is determined at a temperature

A) 50-52 ° C

B) 17-22 ° C

In) 8-15 ° C

F) 15-30 ° C

A) 30-40 ° C

### 6.3. The practical part

#### Manual skill

#### Electrophoresis of the root canal

Objective: electrophoresis of root canal patients.

Indications: The use of physical methods of treatment.

Equipment: dental chair, dental standard set, the unit of GR-2, flannel pads, sticky wax, lead to the active electrode, medicines.

#### Following the steps:

No	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Expansion of the mouth of the inlet into the root canal.	0		15
2	If possible, expand the root canal medication to handle, drain.	0		10
3.	Isolation of the tooth from saliva	0		15
4.	2 cm of copper wire is cleaned and wool soaked in a solution treatment and introduced into the channel.	0		10
5.	Carious cavity is filled with wax.	0		10
6.	10 cm of the second side of the wire is cleaned and attached to the unit GR-2, the indifferent electrode put on the outside of the wrist.			15
7.	Give a current of 3 mA until the patient feels a slight tingling in the wrist and the tooth, the procedure further 20 min.			15
8.	After the end of the			6

	procedure slowly turn off the unit.			
9.	The electrodes are put into sterilized			4
	Total:	0		100

**10. Study Questions**

1. What devices are used for the treatment of pulpitis and periodontitis?
2. What devices are used for the diagnosis of pulpitis and periodontitis?
3. What are the physical methods of investigation should be used when diagnosis of pulpitis?
4. Indications for therapeutic treatment of pulpitis and periodontitis?
5. Contraindications to therapeutic treatment of pulpitis and periodontitis?
6. The mechanism of action of EDI?
7. The mechanism of action EOM?

## LESSON № 19

**THEME: «Application of physical factors for treatment of periodontal & oral mucous membrane diseases. Ultrasonics in dental practice.».**

### 1. PLACE OF CLASSES, EQUIPMENT

- Department of Dentistry.
- Physiotherapy room.
- Textbooks, information from the Internet, magazines, atlas and tables.
- Equipping the workshops with slides, thematic posters.
- Dental chair, a set of tools.
- Tests, case studies, slides, spreadsheets, video.
- TCO: slide scope, TV-video.

### 2. DURATION OF STUDY SUBJECTS

hours - 297 minutes

### 3. SESSION PURPOSE

To familiarize students with basic concepts of electric current, as physical factor that is applied in medical practice.

- The principles of physical therapy equipment used in dentistry.

#### **Tasks:**

#### ***The student should know:***

- Techniques and methods of physical therapy with electrotherapy in dentistry.
- The indications and contraindications to the use of electric current.

#### ***The student should be able to:***

- Rationally choose the required physiotherapy for each the disease.
- To carry out electrophoresis, phonophoresis, darsonvalization, etc..
- To own physical therapy techniques to treat OGAN.
- The correct administration of the dosage indications, time and place of exposure an electric current.

### 4. MOTIVATION

The student should know that physical therapy appointment for an electric current to the diagnosis, to know the principles of electrical current indications and contraindications for its intended purpose, on the basis of this method to pick

up physiotherapy electric shock, given the diagnosis of drugs to choose, the methods of their introduction.

## 5. INTERSUBJECT AND INTRASUBJECT COMMUNICATIONS

Teaching this topic is based on the knowledge bases of students anomalies, biochemistry, pathophysiology, allergy, pharmacology, and chemistry.

## 6. CONTENT OF CLASSES

### 6.1. The theoretical part

#### Ultrasound in dental practice. "

Assigned based physiotherapy clinical disease and the challenges posed in front of a doctor at this stage of treatment. Physiotherapy techniques can provide a sufficiently effective and non-invasive impact on the affected area with minimal risk of side effects, on the other hand, physical therapy can reduce the load on the dentist, physician rid of the routine that does not require highly skilled work (usually physiotherapy "releases" the nursing staff .) To reduce bacterial contamination of the oral cavity and to improve its sanitary conditions apply mineralized dental plaque removal low-frequency ultrasound, local irradiation of CUF, massage the gums with water, antiseptic solutions or decoctions of herbs. For relief of inflammation in periodontal prescribed low-intensity laser irradiation of the gums (ignl), UHF therapy in a dose of thermal, local hypothermia, the effect on the gums apgona plasma flow (PAP), anode galvanization or electrophoresis drugs (terrilitina with Dimexidum, ribonuclease, calcium chloride, sodium salicylate). Arsenal physiotherapeutic factors used to normalize the microcirculation, metabolic, and immunologic processes of reparative regeneration of periodontal tissues, the most extensive. To solve the above problems apply darsonvalization gums, FL UHF in oligotermic dose, local hyperthermia and hypo, high frequency ultrasound, He-Ne laser radiation, plasma flow apgona, vacuumtherapy, cathode electrophoresis galvanization or medicinal substances (vitamins, vasoactive drugs, antioxidants), and also all kinds of massage gums. Effectively as the overall impact of general physiotherapy UV irradiation, aeroionotherapy, galvanic collar on Shcherbak, electric, bath (radon, sulfide, bromine), etc. When assigning a patient physical methods of treatment should be considered indications and contraindications for a particular method with the obligatory account comorbidities, particularly cardiovascular system.

Physical therapy of diseases of the oral mucosa varies depending on the nature and type of lesions of the oral mucosa. For example, when an ulcer to influence the micro flora of the irradiation surface of the ulcer with short UV - rays. Irradiation begins with 1biodozy, increasing it in every subsequent visit to a biodose. In the

course of treatment prescribed 4-5 procedures carried out daily.

Well stimulate epithelization of ulcer surface local darsonvalization. 5.4 Carry out the impact directly on the sore spark a short-techenii3 5 min.

When a large area of ulcerative lesions can be made aerosol, spraying on the surface of lecture material, stimulating epithelization and anti-inflammatory effect. At low current ulcers and reduced the overall reactivity is effective aeroionotherapy or local influence by a constant electric current of high voltage.

Carry out the following treatment for diseases of MEE:

- The total UV radiation,
- Aeroionization,
- Electrophoresis,
- UHF.

When the CPL:

- A simple form: to relieve itching and burning feeling contractions performed darsonvalization local contact or remote method for 3-5 min, the treatment effects of 12.10 every day or two, to improve the tropic electrophoresis with nicotinic acid with vitamin B.
- Erosive-ulcerous form: to prevent secondary infection - the UV rays to reduce pain sensitivity, aerosol therapy with Novocain, to accelerate the epithelialization-aerosol with ceratoplasty.

When hyalites: angular cheilitis, UV irradiation short range, with nystatin electrophoresis, phonophoresis with acid, glandular cheilitis, in a simple form of electrophoresis with iodine (to normalize the function of small salivary glands) in the inflammatory response CUF exposure, with stagnation ultrasound or phonophoresis with hydrocortisone. Long-term chronic glandular halite can lead to hypertrophy of the small salivary glands, and if ultrasound therapy does not hold a positive effect border rays at a dose of 300-500 Bucca once a week or diathermocoagulation ducts and glands affected. Eczematouscheilitis:

Electrophoresis diphenhydramine (12-18 treatment effects),

UHF on-field precipitation (10-15 min treatment 8-12 procedures),

- UV irradiation at doses,
- Paraffin (10-12 procedures),
- Lubrication of the lesion.

The devices used in various physical therapy interventions for the treatment of diseases of the oral mucosa:

1. diadynamic-Tone 1, Tone 2;
2. darsonvalization-Spark-1
3. UHF-therapy "Miniterm";
4. Microwave therapy-BEAM-2
5. aerosol therapy, aerosol-1
6. ultrasound therapy, "ULTRADENT"
7. vacuumtherapy-ALP.

**Used in this lesson, new technology method**

**"Snowballs"**

The method can be used as a first stage of training. Split the group into 2 mg (2 teams), each team choose a leader. Invite each team to prepare for another team to three questions relating to the subject of an occupation in the preparation of questions should be prepared and its response to the question. The preparation of the issues is given 7-8 minutes.

The leader of each team selects the best (most interesting and important) issues of the proposed options. Upon completion of training issues, team alternately ask each other questions. The preparation of an answer given 1 min. And then for 1-2 min. sets out the answer to the question (all costs are controlled by time teacher). If the team asked the question does not agree with the above answers, it offers its own version.

After each "question-answer" teacher quality comments and questions and answers. The protocol class rating of a question, answer and complement. In assessing the quality issue is taken into account to comply with the theme, concreteness, originality, scientific literacy of presentation, relevance (5 points) in evaluating the answer - the accuracy, completeness, conformity to the topic, the scientific literacy of presentation, clarity (5 points). For his answer put an additional point: the right, a significant addition - 1 point, a small addition from 0.1 to 0.5 points, incorrect addition (-) 0.5 points.

All of the discussion shall be entered in the record on the form:

1 Team	2 Team
: Evaluation in points	

Question number

: \_\_\_\_\_

: Question answer supplement: question answer supplement

In summarizing the teacher sums up all the points scored by each team, and divide the sum by 6 (3 questions and 3 answers).

The calculated value will be an average rating of team members. A higher score (above 0.5) exhibited the most active members of the team, passive students punished by a fine (-0,2-0,3).

Variants of questions:

1. What are indications for physiotherapy?
2. Give the mechanism of action of these devices?
3. Write down fiziorecipe?
4. Contraindications for physiotherapy?
5. What physical therapy techniques are used to treat diseases of the oral mucosa?
6. What is physical therapy used in diseases of the oral mucosa?
7. What are the physical therapy apparatus used for the treatment of diseases of the oral mucosa?

## **6.2. ANALYTICAL PART**

### **Situational tasks:**

1. A patient, long-term medication about glandular hylite. What physiotherapy treatment you can offer?

2. Patient A complained of pain, odor, swelling of the gums. OBJECTIVE: gum swelling, hyperemic, there are abundant above and below the gingival dental plaque. The depth of the pockets of over 5mm. There have periodontal abscesses in selected groups of teeth, as well as the mobility of 2-3 degrees. Place a diagnosis. Justify your diagnosis and give your recommendations.

### TESTS

1. Paraffin is superimposed on the pathological center thickness:
  - A) not less than 1 cm
  - B) do not bolee2sm
  - B) bolee1.5sm
  - D) not less than 2 cm
  - D) not less than 3 cm
  
2. Increased permeability of capillary walls set at an intensity of ultrasound
  - A) 0.4 W/cm<sup>2</sup>
  - B) 1.0 W/cm<sup>2</sup>
  - B) 0.8 W/cm<sup>2</sup>
  - D) 2.0 W/cm<sup>2</sup>
  - D) 1.4 W/cm<sup>2</sup>
  
3. For biodynamic therapy to the device:
  - A) Tone-2
  - B) The Spark-1
  - B) Miniterm
  - D) Beam-2
  - D) ALP
  
4. To use the device darsonvalization
  - A) Tone-2
  - B) The Spark-1
  - B) Miniterm
  - D) Beam-2
  - D) ALP
  
5. For UHF therapy using the device
  - A) Tone-2
  - B) The Spark-1
  - B) Miniterm
  - D) Beam-2
  - D) ALP

### 6.3. The practical part

#### Manual skill

#### Electrophoresis of the gums.

Objective: electrophoresis gum for patients.

Indications: The use of physical methods in the clinic.

Equipment. Dental chair, gingival electrodes, dental standard set, the unit of GR-2, sticky wax, flannel lining, lead to the active electrode, medical preparations

#### Following the steps:

№	Following the steps.	Step is not performed.	Step is not fully implemented.	Step is made in full
1.	Get gum electrodes measuring 10 cm * 1 (active electrode) and a gauze propytannuyu treatment solution.	0		10
2.	One electrode is put on the vestibular side of the alveolar bone of the upper jaw.	0		14
3.	The second electrode is put on the surface of the mandible.	0		14
4.	Prepare an indifferent (passive) electrode size of 10 * 8 cm.	0		6
5.	Passive electrode placed on the outside of the wrist.	0		14
6.	The second part of the electrode attached to the unit GR-2			14
7.	Turn current on the electrodes to a light tingling feeling. (20 min)			12
8.	After the procedure slowly turn off the unit.			10
9.	The electrodes are put into sterilized			6
	Total:	0		100

### 10. Study Questions

- 1 What physical therapy techniques are used to treat diseases of the oral mucosa?
2. What is physical therapy used in diseases of the oral mucosa.
3. What are the physical therapy apparatus used for the treatment of diseases of the oral mucosa.
4. What are the indications and contraindications for physiotherapy.
5. Give the mechanism of action of these devices?
6. Write down a fizio recipe?

## 11. RECOMMENDED LITERATURE

### *Main:*

1. Banchenko GV, Maksimov Yu.M. Language - "mirror" of the body. Moscow Business Center "Dentistry" 2000 - 407 with.
2. Borovsky EV and coavt. Preventive dentistry: Textbook - M., 2004. - 840 with.
3. Borovsky EV Danilevsky NF Diseases of the oral mucosa. Atlas .- M., 1991. - 320.
4. Borovsky EV Mashkilleyson AL Diseases of the oral mucosa and lips. M. Medpress, 2001.
5. Balin, VN, A. Hook 'symptoms and syndromes in dental practice ', 2000
6. Diseases of the oral mucosa. Ed. L. Lukin. - Novgorod, 2001.
7. Kamilov H.P., Ibragimov MH, Mirahmedova DW boshq Island. Og'iz bo'shligi shillik pardasi kasalliklari: Tutorial - Tashkent: Yangi Asr avlod, 2005 .- 168 b.
8. Halvig E., J. Klimtek, Attin T. dentistry: Ed. prof. Politun AM, prof. Smolar NI / Per. with it. - Lviv: GalDent, 1999.
9. Preventive dentistry. Textbook edited by Professor E. Borowski and Professor M. Maximovsky. Moscow, 1998, P.21-27
10. Fundamentals of Dental Physiotherapy edited by MD Prof. Academician EM RAMTN Avanesyantsa 2002
11. Physiotherapy LM Klyachkin, MN Vinogradov., Moscow, "Medicine", 1988

### **Additional**

12. Zhumatov U.ZH. Bosko Island. Ofiz b'yshligi shillik qavatikasalliklarini tashhis lash, davolash Islands oldini olishning Zamonaviy zhixatlari / Ÿkuv - usluby q'yllanma .- Tashkent, 2003. - 108 b.
13. Zhumatov U.ZH. et al. Collection of sample test questions, situational tasks and practical skills to prepare students for the dental faculty of the exam by the OSCE. - Tashkent, 2003. - 136.
14. Zhumatov U.ZH., Mirahmedova JW, Mubarakova NA, NNMisharova New technologies in education department of dentistry for the 5th year. - Tashkent,

2005. - 2.

15. Diseases of the oral mucosa. Study Guide. - M., 1996.
16. Zufarov OO, Mirahmedova JW, Bektashev SI, Zhumatov U.ZH. Ogiz bushligi shillik kavatining kasalliklari .- Tashkent, 2001. - 106 b.
17. Mamedov, FM et al. Ogiz bushligi shillik pardasining kasalliklari .- Tashkent, 1995. -140 Sec.
18. Physical factors used in dentistry: Ed. OI Efanova .- M., 2000 -58.
19. Epishev VA, Mamedov, FM most frequent stomatitis in Uzbekistan. Tashkent. 1970. - P.5 - 35
20. Rybakov AI Banchenko GV diseases of the oral mucosa. M.: 1978 .- P.11 - 31
21. Diseases of the oral mucosa / Ed. LM Lukin. Nizhny Novgorod. 2000.-C.8 - 11
22. Ogiz bushligi shillik pardasi kasalliklari / Kamilov H.P. and others Tashkent "Yangi avlod Asr." - 2005 .-168 sec.

**Electronic information obtained from the following sites**

<http://www.nidgou.mtdlineplus.ru/ency/article/00/055>.  
<http://Stom.ru/student/referat>,  
<http://Stomatologiya.ru> / <http://Stom.ru/student/referat>,  
<http://Stomatologiya.ru> /