

Ulcerous diseases in children

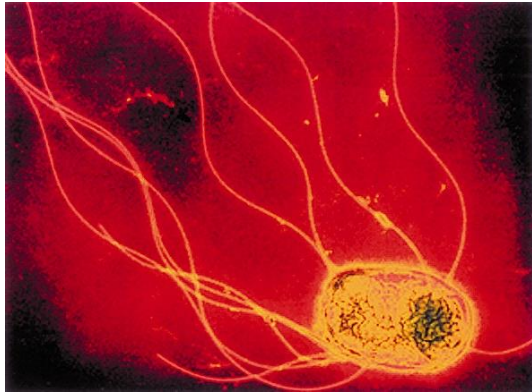


Ulcerous disease

- Chronic with residue current and susceptibility to progressing of the disease
- With morphological equivalent as a defect of mucous and submucous layers and outcome - connective tissue scar

Etiology

infection by *Helicobacter pylori*



- Nowadays ***Helicobacter pylori*** is called as a leading factor of ulcerous diseases development.
- Appearance of ulcer in duodenum almost in 100% of cases closely connected with *Helicobacter pylori*, and gastric ulcer - 80 – 90% of cases.

Etiology

- **Acute and chronic psycho-emotional stress situations**
- G. Selee found that nerve-psychic factor is too important at the development of any ulcerous disease.
- A. Limbach said about this factor like «stress – is a rope with loop around the stomach».

Etiology

- **Alimentary factor**
- **Abuse of alcohol, coffee, smoking**
- **Impact of some medications (such as aspirin, glucocorticoids-hormones)**

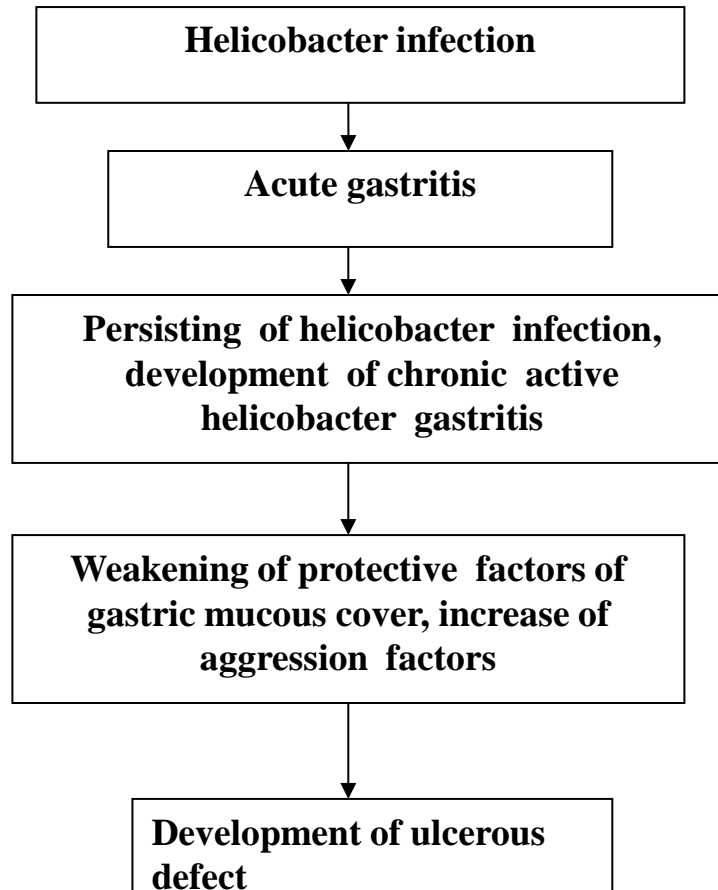
Diseases promoting the development of ulcerous disease

- Chronic obstructive bronchitis, bronchial asthma, emphysema of lungs (in these diseases the followings are developed: respiratory failure, hypoxemia, ischemia of mucous cover of the stomach and decrease of activity of its protective functions;
- Diseases of CVS that accompanied by the development of hypoxemia and ischemia of tissues and organs and also, stomach;
- Liver cirrhosis;
- Diseases of pancreas.

Pathogenesis

- Ulcerous disease of the stomach and duodenum is developed as a result of equilibrium disorder between factors of aggression of gastric juice and protective factors of gastric mucous cover and duodenum to the side of aggression factor prevalence

Pathogenetic importance of helicobacter infection at the development of ulcerous disease



Pain syndrome pain localization

- Pain is localized on epigastral area,
- In case of gastric ulcer – mainly in the center of epigastrium or on the left from median line,
- In case of duodenal ulcer and prepyloric zone – in epigastrium on the right from median line.
- In case of ulcer of cardial part of the stomach – often there is atypical localization of pain beyond sternum or on the left from it (pericardial area or area of heart apex).
- If pain localized on post-bulbar part – that pain is felt on back or right epigastric area.

Pain syndrome

time of pain appearance

- Acc to time of food intake - there are early, late, night and «hungry» pains.
- Early pains appearing in 0,5 – 1 hour after food intake, intensity of them grows gradually,
- If pain annoys; pain may annoy the patient during 1,5 – 2 hours and then if evacuation of gastric content occurs, pain disappears gradually.
- Late pains appear in 1,5 – 2 hours after food intake, night pains – at night, hungry pains – in 6 – 7 hours after food intake and stop when patient eats something or drinks milk.
- Late , night, hungry pains are characteristic that localization of ulcer is in antral part and duodenum.
- Hungry pains are not observed in other diseases.

Pain syndrome

character of the pain

- **Period of pain.** Period of pain appearance is characteristic for any ulcerous disease. Exacerbation of ulcerous disease lasts from several days up to 6 – 8 weeks, then remission phase occurs during which the patient feels well himself, pains do not annoy him.
- **Alleviation of pain.** Decrease of pain after antacids take, after food intake and milk («hungry» pains), frequently after vomiting.
- **Seasonality of pain.** Exacerbation of ulcerous disease is often observed in spring and fall. This «seasonality» of pain especially characteristic for ulcer of duodenum.

Dyspeptic syndrome

- **Heartburn** – one of frequent and characteristic symptom of ulcerous disease .
- It is conditioned by gastro-esophageal reflux and irritation of mucous cover of the esophagus by gastric content, which rich in hydrochloric acid and pepsin.
- In some patients: heartburn – sometimes splitting as equivalent of pain.

Dyspeptic syndrome

- **Eructation** – frequent symptom of ulcerous disease.
- Eructation, often empty, air, rarely with food. The most characteristic is acidic eructation.
- **Nausea and vomiting.** These symptoms appear in exacerbation period.
- Vomiting is connected with increase of nervus vagus tone, increase of motor function of the stomach and gastric hypersecretion.
- Vomiting occurs on the «height» of pains, vomiting mass contains acidic content of the stomach.
- After vomiting relief occurs, patient feeling becomes well, pain weakens and even disappears.
- Patients often cause vomiting for relief of own condition.

Data of objective clinical inspection

- Type of body-frame – astenic (often) or normostenic
- Hyperstenic type and excess mass of body is less characteristic for patients with ulcerous diseases

Signs of vegetative dysfunction

- Clear prevalence of nervus vagus tone:
- cold, wet palms, marmorate skin and marmorate distal parts of limbs
- Tendency to bradycardia;
- Arterial hypotension;
- Asteno-vegetative syndrome is manifested by :
 - Anxiety,
 - Hypochondria (morbid depression),
 - Irritability,
 - Weakness,
 - Egocentrism,
 - Demonstrativeness.

Palpation and percussion of the abdomen

- Moderate, in exacerbation period there is clear painfulness on epigastrium, as a rule, it is localized.
- In case of gastric ulcer painfulness localized on epigastrium along median line or on the left, in case of duodenal ulcer – mostly on the right.
- Percutory painfulness – Mendel symptom
- This symptom detects by abrupt percussion bending fingers under straight edge along symmetric areas of epigastral area
- Painfulness is more clear during inspiration

Peculiarities of ulcerous diseases current in junior and adolescent age

- Disease often proceeds in latent form or atypical form,
- Pain syndrome is weakly clear and manifested by neuro-vegetative signs (sweating, arterial hypotension, increased irritability);
- Complication develops rarely;
- Examination of functional ability - suddenly clear gastric hypertension is detected;
- Wound healing occurs rapidly.

Complication of ulcerous diseases

- Bleeding from ulcer
- Perforation of ulcer
- Penetration of ulcer
- pylorus stenosis and duodenal stenosis
- Malignant changes of ulcer (stomach)

Lab and instrumental examination of ulcerous diseases

- GAB, GAB, coprology
- Feces analysis on hidden bleeding (with the help of Gregersen-Weber reaction)
- Biochemistry of blood: determination of content of common protein, protein fraction, aminotransferase, bilirubin, glucose, sodium, potassium, calcium, chlorides.
- Endoscopic examination with biopsy.
- X-ray of the stomach and duodenum (if there is contraindication to PEGDScopy).
- Examination of secretory function of the stomach by fractional probing method with pentagastrine (it is as a stimulator of gastric secretion), or histamine.
- Examination of biopsies of gastric mucous cover to helicobacteriosis

Treatment of ulcerous disease

- Diet – table №1.
- Physical and psychic rest
- Stop of medications take which have irritating action on mucous cover of the stomach

Treatment of ulcerous disease

- **Antibacterial therapy acting on Helicobacter pylori:** semisynthetic penicillins (oxacillin, amoxicillin, chiconcil and etc.);
- Macrolides (erythromycin, asitromycin, sumamed, clarithromycin and etc.);
- metronidazole, furasolidon and etc.

Treatment of ulcerous disease

- **Basic therapy** – anti-secretory medications:
- H₂ –hystamineblockers: zantak(ranitidan), phamotidin (gastrocidin, quamatel, ulfamid), nizatidin (acid); inhibitors of protone pomp – omeprasol (losek, omez, lansoprasol);
- M-cholinoblockers: gastorocepin, gastril, gastrozem and etc.
- Recommended: **cytoprotectors** (de-nol, sukralfat, enprostil), **antacides** (maalox, phosphalugel, almagel.).

Treatment of ulcerous disease

- **Symptomatic therapy:** spasmolytics (no-shpa, papaverin, duspatalin); analgetics (baralgin, platifillin and etc.),
- Sedatives (valerian, bromide, motherwort, elenium,
- In some cases tranquilizers with short course