Case 13

1. Chronic gastric ulcer with malignization and bleeding
On preparation combined complication of flow of illness is observed: bleeding from the arose vessels of bottom of ulcer and malignization (presence of signs of cellular Atticism)

2. Chronic gastric ulcer with malignization.
In the wall of stomach deep crater form chronic ulcer with closed edges, cartilaginous closeness is observed at microscopic research in the edges of chronic ulcer the signs of cellular Atticism are found.

3. Pancreas at diabetes mellitus

4. Lipomatosis of pancreas
   In the parenchyma of pancreas excrescences of connecting tissue, hearths of fatty tissue, atrophy of parenchyma of gland are observed. A gland is refined, diminished in a size.

5. Acute gastric ulcer with penetration.
   In the wall of stomach takes place ulcer of oval form, the edges of it are presented by mucus’s, sub mucous and muscle layers. In bottom of it there is the perforated aperture in which tissue of pancreas is observed (¹.16. Acute gastric ulcer with penetration in a pancreas). In other case in bottom of acute ulcer epiploon is observed (¹15. Acute gastric ulcer with penetration in an omentum) Penetration of ulcers (penetration) are penetration of it outside a stomach, when tissues of neighboring organs become the bottom of ulcer is pancreas, omentulum, transverse colon, gall-bladder, liver. Penetration is accompanied by digestion of neighboring tissue of organ by gastric juice and also its inflammation.

7. Chronic ulcer
On a micro-slide is chronic ulcer. Edges are roll-formed, solid, closed bottom rough. Edge of the ulcer, turned to the gullet, sap, and a mucus membrane hangs over a defect, a niche appears and gastric contents accumulates there. The edge turned to the output, is declivous. Microscopically the bottom of such ulcer is presented by connecting tissue, and in mucus chronic inflammation appears on the edges of defect.
9. Cancer- gastric ulcer

The cancer of stomach has the form of ulcer with hilly sap edges, in combination with infiltrative growth is ulcerous-infiltrative cancer.

The lymphogenic metastases of cancer can be into a pleura, lungs, peritoneum, although in the last one they more frequent appear explanatively at the germination by the tumor of serosa of wall of stomach. Implantation metastases appear as plural different size of tumors knots in a parietal and visceral peritoneum, which are accompanied by fibrinous-hemorrhagic exudates.

Hemorrhhalional metastases are as plural knots and appear in a liver, lungs, and bones.

10. Acute gastric ulcer.

On the wall of stomach the defect which reaches to the serous is observed. Reason of appearance of illness can be the actions of different factors which result in stress. Ulcers appear as a result of ischemia of mucus membrane that results decline of its resistance to acid. In the process of development of ulcerous illness erosion, especially on small curvature, does not heal over. As a result of influence of gastric juice deeper layers of stomach wall necrotize and erosion grows into the acute peptic ulcer (ulcus acute pepticum) of round or oval form. It is known that small curvature is a "food path" and that is why is easily injured. The glands of it produce very active gastric juice. Small curvature rich on receptors and extraordinarily reactive, but folds of it are rigid and at reduction of muscular layer can't close a defect. Bad cicatrisation of damages of small curvature and transition of acute ulcer into chronic (ulcus chronicum) connect with it.


Distinguish the following basic types of tumor after a macroscopic picture: nodule; infiltrative; ulcerous. Metastases most often arise up in the place of the first capillary net, which appears from vessels which carry blood from the place of primary localization of tumor. Reason of stop of tumor emboli can be cleanly mechanical is the diameter of vessel appears less, than diameter of tumor cell, but the place of stop of tumor by emboli can concern hemorrhages and fibrinous-festering stratifications. Leukocyte infiltration impregnates with all layers of stomach and surrounding peritoneum that causes development of per gastritis and peritonitis. That on the surface vessels of different organs there are the special receptors which can be common to the tumor cells.
Most often metastases develop in lymphatic knots, liver, lungs. Rarely - in the muscle of heart, skeletal muscles, skin, spleen, pancreas. After frequency of localization of metastases CNS, bone system, kidneys, suprarenal takes intermediate seat.

13. **Chronic gastric ulcer with bleeding**
Bleeding arises up in the period of acute condition as a result of fibrin necrosis of wall of vessels (erosive bleeding). In the bottom of ulcer thrombosis vessels are observed. A patient has vomit by "coffee mass", the color of it is predefined by meiotic hem tin. Excrements get a color and consistency of tar. Such emptying are named a Melina (Melina).

21. **Corrosive gastritis**

More frequently it develops after the action of different chemical substances (for example, alcohol, of poor qualities food products) or some medicines (especially non-steroid antiinflammative substances which contain an aspirin). These substances cause rapid peeling of epithelial cells and hypomyxia that is accompanied by the decline of function of protective barrier against the action of acid. The decline of synthesis of prostaglandins lies in pathogenic of this process. According to dissemination they distinguish: acute diffuse gastritis; acute hearth gastritis. In same queue acute hearth gastritis can be mainly feudal, antral, pyloroantral and pyloroduodenal.

Necrotizing (corrosive) gastritis (gastritis necrotic s. corrosive) is the result of action on mucus stomach of acids and alkalis which coagulate and destroy it. A necrotizing process can result in development of phlegmon and even perforation. On preparation wall of stomach is dirty-grey color, rugosity is not expressed.

23. **Gangrenous gastritis**

Arises up at the traumas of stomach, ulcerous illness ulcerous cancer of stomach. Mucus is acutely incrassate, folds are solid with

24. **Nodule cancer of stomach.**

Original appearance of tumor is a knot is compact new formation with clear scopes. A knot can have the appearance of hat of mushroom on a wide leg,
polypus. The surface of it can be smooth, hilly or nipple and to remind a cauliflower. Localization of cancer more frequent all arises up in a pyloric part, then on small curvature, in a cordial part, on large curvature, rarer - on a front and back wall, very rarely - in the region of bottom.

25. **Cancer of stomach (skier)**

Malignant tumor of stomach, in which prevail prevails above a parenchyma. On a cut cancer is presented by tissue of white or grey color of woody closeness. Adenocarcinome is the most frequent histological type of cancer of stomach. From undifferentiated cancers meet solid and signet ring cell carcinoma.

Complication. Frequent complications of cancer of stomach are:
- exhaustion (cachexy) which is conditioned by violation of feed and intoxication;
- chronic anemia, related to starvation (mastering of meal is broken), shallow frequent hemorrhages, violation of making of antianaemic factor (factor of Castle), tumor intoxication metastases, in marrow (violation of hemopoesis);
- common acute anemia which can arise up as a result of erasing of large vessels and can cause death;
- perforation of tumor gastric ulcer and development of peritonitis;
- phlegmon of stomach as a result of infection;
- development of gastric and intestinal impassability that arises up at the germination compression of road clearance;
- development of mechanical icterus, portal hypertension hydroperitoneum, as a result of germination by the tumor of caput of pancreas bilious channels, a gate veins or prelums by their metastases in the lymphonoduss of gate of liver.

**Macro preparations with the initiation**
8. Metastases of cancer of stomach in a pancreas
16. Metastases of cancer of stomach in a liver
17. Metastases of cancer of stomach in a diaphragm
27. Metastases of cancer of stomach in a spleen
19. Plural metastases of cancer of stomach in a liver
18. Metastases of cancer of thin bowel in lymphatic knots
20. Carcinomatosis of peritoneum
Initiation is formation of the repeated hearths of tumor excrescence (metastases) as a result of distribution of cells from a primary hearth in other tissues. Metastases arise only out of malignant new formations.

To the number of factors which assist to development of metastases, the weak intercellular contacts, high mobility of tumors cells, higher hydrostatical pressure, belong in a tumor knot compared with surrounding tissues, lower values of pH in tumor tissue (environment, that acidification) in comparison with surrounding tissues, production by the tumors cells of numerous proteases, for example, collagenase.

The initiation consists of 4 stages: 1) penetration of tumors cells in the road clearance of lymphatic or blood vessel; 2) transference of tumors cells by the flow of blood or lymph; 3) stop of tumor cells on a new place (metastasis - from grec. meta stateo - I stand differently); 4) output of tumors cells in per vascular tissue; 5) excrescence to the metastasis.

The initiation of cancer of stomach is carried out - lymphogenic, heamatogen and by implantation (contact). The special value is had by lymphogenic metastases in the regional lymphatic knots located along small and large curvature of stomach, in the lymphynoduss of large and small epiploon. They appear the first and determine a volume and character of operative interference. To the remote lymphogenic metastases belong lymphonoduss of gate of liver (per portal), Para pancreatic and Para aortal.

The most important by localization are the following lymphogenic metastases:

- Virhow's metastases - in supraclavicular lymphonoduss (more frequent in left) (ortograd);
- Krukenberg’s cancer of ovaries - in both ovaries (retrograde);
- Shnitsler’s metastases - in the peritoneum of back space Douglas’ and lymphonoduss of pararectal cellulose (retrograde).

14. Cancer of colon
22. Cancer of colon

The cancer of colon today meets more frequent than before, a death rate from him is multiplied. From the different departments of colon of shrines more frequent meets in a rectum, rarer - in sigmoid, caecum, hepatic and splenic corners of transversal bowel.

Pericardial conditions:
- hyperplasia polypuses;
- adenomatous polypuses;
- polyp uses of fibers;
- polyp sis to the intestine;
- chronic ulcerous colitis;
- chronic fistulas of rectum.

Macroscopically more frequent of all there are ulcerous, ulcerous-infiltrative forms, but there can be cancers in the form of knot (polypus and hilly).

Histological types: adenocarcinome is most widespread (to 80%). Can meet also signet ring cell carcinoma, and in the area of the anal aperture is squamous cell with the confiscation and without the confiscation.

Metastases: in Par rectal lymphonoduss and lymphonoduss of small pelvis, then in mesocolonal lymphonoduss, and at women - in both ovaries. Haematogenly cancer of bowel can initiate in a liver, lungs.

Complication: bleeding, perforation of bowel with development of peritonitis, paraproctitis; development of intestinal impassability; forming of fistulas.

**26. Non-specific ulcerous colitis.**

Ulcers have unequal edges and placed meet, they spread horizontally on not damaged areas, forming the considerable injures. Usually, ulcers superficial, take mucus and sub mucous membranes, however damaged all layers of bowel can be in heavy cases, up to the perforation. The expressed hyperemia appears in intact mucus, ulcers often are bleeding. At a non-specific ulcerous colitis there is the successive and continuous type of damage. At first the damage arises up in a rectum, where are the maximal changes which then spread on a sigmoid bowel.

Infiltration of mucus by the cells of acute and chronic inflammation concerns microscopically. In a acute period there can be complete destruction of crypts. Then their regeneration begins. New formed crypts differs by considerable expansion and often have connection with neighboring crypts. Atrophy and considerable expansion of crypts in which the signs of metaplasia of epithelium appear sometimes appears at the biopsy of rectum. A non-specific ulcerous colitis is the pre-tumor disease that is why displays of epithelium appears on some areas.

**28. Diverticulum’s of gullet**

On the wall of gullet takes place circular thrusting out. As complication of it can be the perforation with development of mediastinitis, inflammation of wall is diverticulitis. A metaplasia in the wall of gullet can cause development of cancer of gullet.

**30. Chronic ulcer of duodenum**
The chronic ulcer of duodenum has the round or oval form. A size, as a rule, does not exceed 2 cm in a diameter, however described cases, when sizes reached 10 cm at in a diameter and anymore. The depth of ulcer is different, sometimes it achieves a serosa. The edges of ulcer are clear, dense and over peer above the surface of mucus.

In a period acute microscopically necrotized tissues and polymorph cellular exudates appear in the days of ulcer. In the vessels of cicatricle tissue often there are fibrin changes and considerable narrowing of bloods vessels as a result of proliferation of intimae. In a period remission cicatricle tissue appears in the edges of ulcer. Mucus on edges is increassate, hyperplasia.

Complication. Cicatrisation of ulcer develops with the regeneration of epithelium and fibrosis of subject tissues. Thus narrowing of road clearance of organ can develop as a result of reduction and compression of scars: stenosis or central narrowing of stomach (stomach as sand-glasses). Also possible perforation of wall of bowel, here contents of digestive system is outpoured in an abdominal region that causes development of peritonitis. At penetration there is the breach of ulcer in the nearest organ, for example, pancreas or liver. At erosion of bloods vessels there can be bleeding which often is lethal.

31. Erosive gastritis

Erosion (erosions) is the superficial defect of mucus membrane, which does not penetrate deeper then its muscular plate. As a rule, such defects acute, very rarely chronic; arise up as a result of necrosis of area of mucus with a next hemorrhage and casting-off of dead tissue. In the bottom of such defect they find meiotic hematite of the black coloring, and in the edges of it – leukocyte infiltration.

36. Chronic hypertrophy gastritis

Illness of Monetary, at which a mucus shell is very increassate and has the appearance of gurus of cerebrum, is the special form of chronic gastritis. Morphological basis of illness is proliferation of cells of ferrous epithelium, hyperplasia of glands and infiltration of mucus by lymphocytes, plasmocytes, epithelia and giant cells, with formation of cysts.

Acute of chronic gastritis is manifested as the edema of stroma, hyperemia, considerable cellular infiltration with the increase to the percent of neutrophiles, sometimes - formation of micro abscess and erosions. During remission these signs are absent. In connection with that at chronic gastritis the brightly expressed processes of the disfigured regeneration and gelatins, which
result in cellular atypism (displays), on its basis louse the cancer of stomach develops often

37. Appendicitis.

Appendicitis is inflammation of vermiciform sprout of blind gut they distinguish two clinical-anatomic forms of appendicitis: acute and chronic. More frequent of all the reasons of acute appendicitis are the obstruction of road clearance of appendix by excrements or bulge of sub mucosa as a result of lymphoid hyperplasia, and also at the bend of sprout. Thus in a distal segment is the increased reproduction of microorganisms, such as Escherichia coli, Streptococcus faecalis and anaerobic bacteria. These bacteria then get to mucus and other layers of appendix, causing acute inflammation.

Pat morphological changes. It is accepted to distinguish the following basic morphological forms of acute appendicitis:

- Simple;
- superficial;
- destructive (which in same queue divide by phlegmonous, apostematous, phlegmonous-ulcerous, gangrenous).

All these forms are the morphological reflection of phases of acute inflammatory process in an appendix, which is finished by necrosis. Duration of this process is 2-4 days.

For acute simple appendicitis characteristic presence stasis in capillaries and venules, edema, hemorrhages, regional placing of leucocytes, leukodiapedesis, more frequent of all in a distal part of the appendix. Outwardly an appendix looks normal, however, a diagnosis is confirmed at histological research.

Acute superficial appendicitis is characterized by a presence in the distal part of focus exudative festering inflammation in a mucus shell that is reflected as primary affect.

The changes incident to simple or superficial appendicitis can be reverse. However, as a rule, they make progress and destructive appendicitis develops.

To the end of the first days leukocyte infiltration (neutrophyles prevail) spreads on all layer of wall of sprout (phlegmonous appendicitis). The macroscopically inflamed appendix looks filling out and red, his surface is often covered by a fibrinous-festering exudates. Sometimes shallow plural abscesses appear on this background, then such appendicitis is marked as apostematous. Acute inflammation of mucus membrane cause formation of ulcers and inflammation of muscular layer – it is phlegmonous-ulcerous appendicitis. The festering-destructive changes finished with development of gangrenous appendicitis. A sprout at this form is incrassate, wall of his grey-dirty color, atheistic with an unpleasant smell, from a road clearance a pus is secreted.
Microscopically take place considerable hearths of necrosis with the colonies of microbes, hemorrhages, blood clots in vessels. A mucus shell is practically along the whole length of desquamated.

**Complication.** Local distribution of inflammatory process can cause bringing in of periappendicular tissues, that manifests as development of "appendicular infiltration" or abscess. Peritonitis can develop as a result of perforation. Remote abscesses can also appear (for example, in a rectal part and infradryaphragm spaces). Very rarely there is distribution of inflammation on veins that result in development of thrombophlebitis of portal vein with forming of plural pylephlebical abscesses of liver.

An appendix is characterized by the presence of sclerotic and atrophy processes on a background of which there can be the found out the signs of inflammative-destructive changes. There are commissural with surrounding tissues. At cicatrice obliteration of proximal part in education of vermiform sprout a serous fluid can accumulate and a cyst appears - hydropsy of sprout. If contents of cyst is presented by mucus, they name such complication as mucocele. At the break of such cyst and hit of contents in an abdominal region possible implantation of cells on a peritoneum and development of formations, which remind a tumor is pseudomyxoma of peritoneum.