

## Травна система

1. During histological examination of the stomach it was found out that glands contain very small amount of parietal cells or they are totally absent. Mucose membrane of what part of the stomach was studied?

- A. **Pyloric part**
- B. Body of stomach
- C. –
- D. Cardiac part
- E. Fundus of stomach

2. A 39-year-old patient after radiotherapy because of hepatoma developed ulcer of small intestine. It was caused by the inhibition of mytotic activity of the cells, which are responsible for regeneration of small intestine surface epithelium. Inhibition of what cells mitotic activity does this patient have?

- A. **Crypt columnar cells without brush border**
- B. Caliciform exocrynocytes
- C. Endocrine cells
- D. Exocrynocytes with acidophilic granules
- E. Columnar cells

3. Examination of a 43 y.o. patient revealed that his stomach has difficulties with digestion of protein food. Gastric juice analysis revealed low acidity. Function of which gastric cells is disturbed in this case?

- A. **Parietal exocrinocytes**
- B. Main exocrinocytes
- C. Mucous cells
- D. Endocrine cells
- E. Cervical mucocytes

4. A patient ill with chronic gastritis went for endogastric pH-metry that allowed to reveal decreased acidity of gastric juice. It is indicative of diminished function of the following cells:

- A. **Parietal exocrinocytes**
- B. Accessory cells
- C. Endocrinocytes
- D. Cervical cells
- E. Chief exocrinocytes

5. An electron microphotography of a fragment of proper gastric gland shows a big irregular round-shaped cell. There are a lot of intracellular tubules and mitochondria in the cytoplasm. Specify this cell:

- A. **Parietal cell**
- B. Mucous cell
- C. Endocrine cell
- D. Undifferentiated cell
- E. Principal cell

6. When autoradiographic study of the small intestine epithelium was performed, it was found that complete regeneration occurs for 3 days of active proliferation of undifferentiated cells. Specify their location:

- A. **The bottom of the crypts**

- B. The top of the villi
  - C. The base of the villi
  - D. Lamina propria of the mucosa
  - E. The lateral surface of the villi
7. Damage of the epithelium of the mucosa was revealed by endoscopic examination of the stomach. What glandulocytes are responsible for reparative regeneration?
- A. Undifferentiated cervical mucocytes**
  - B. Additional mucocytes
  - C. Chief exokrinocytes
  - D. Parietal exokrinocytes
  - E. Surface glandular epithelium**
8. In histological slide cross-section of the hollow organ wall is presented. Its mucous membrane is covered by stratified squamous non-keratinizing epithelium. What organ is this?
- A. Esophagus**
  - B. Duodenum
  - C. Colon
  - D. Uterus
  - E. Appendix
9. Pernicious anemia was developed in patients after gastrectomy. The absence of what cells of the gastric glands causes this pathology?
- A. Parietal**
  - B. Chief
  - C. Cervical mucocytes
  - D. Endocrinocytes
  - E. Goblet
10. On histological slide submucosa of the small intestine is filled by secretory portions of protein glands. What department of the small intestine is presented in the slide?
- A. Duodenum**
  - B. Colon
  - C. Jejunum
  - D. Ileum
  - E. Appendix
11. On histological slide of the small intestine wall groups of cells were found that are located at the bottom of the crypts, have basophilic cytoplasm and acidophilic secretory granules in the apical part. What are cells?
- A. Paneth cells**
  - B. Cells without brush border
  - C. Endocrine cells
  - D. Goblet cells
  - E. Columnar with brush border**
12. Newborn has violation of digesting of the breast milk. Violation of what gastric glands cells is observed?
- A. Chief exocrinocytes**
  - B. Parietal exocrinocytes
  - C. Cervical mucocytes
  - D. Additional mucocytes

- E. Exocrinocytes
13. Focal gastric epithelial damage occurred after exposures of the harmful factors. Which cells are responsible for regeneration?
- A. Cervical mucocytes**
  - B. Parietal exocrinocytes
  - C. Chief exocrinocytes
  - D. Endocrinocytes
  - E. Mucocytes of glands body
14. On histological slide of the fundus glands large cells with acidophilic cytoplasm and complex system of intracellular tubules are visible. Which component of the gastric juice these cells form?
- A. Hydrochloric acid**
  - B. Pepsinogen
  - C. Mucus
  - D. Serotonin
  - E. Gastrin**
15. Long course of treatment with aspirin was appointed to the patients with rheumatic fever. Which structural component of the gastric mucosa will protect from damage in the greatest measure?
- A. Simple columnar glandular epithelium**
  - B. Connective tissue
  - C. Muscle tissue
  - D. Stratified ciliated epithelium
  - E. Stratified squamous non-keratinizing epithelium
16. In the electron micrographs of the fundus gastric gland the large oval cell is visible. Cytoplasm contains a system of intracellular secretory tubules, numerous mitochondria. Call this cell.
- A. Parietal**
  - B. Chief
  - C. Undifferentiated
  - D. Mucous
  - E. Exocrine
17. Surface epithelium of the stomach mucosa is damaged by inflammatory diseases. What type of the epithelium is damaged?
- A. Simple cylindrical glandular**
  - B. Simple squamous
  - C. Simple cuboidal with microvilli
  - D. Simple cuboidal
  - E. Stratified cuboidal**
18. Violation of digestion and absorption of proteins in the small intestine as a result of deficiency in intestinal juice dipeptidase were detected in patients with chronic enterocolitis (inflammation of the intestine). Which cells have been damaged?
- A. Paneth cells**
  - B. Columnar with a brush border
  - C. Columnar without brush border
  - D. Goblet
  - E. Endocrinocytes**
19. Suction (absorption) function is disrupted in diseases of the small intestine mucosa. What epithelium is responsible for this function?
- A. Simple columnar with brush border**
  - B. Simple cuboidal

- C. Simple columnar ciliated
  - D. Stratified squamous
  - E. Stratified cuboidal**
20. Patient with diseases of the small intestine has a violation of the luminal and membrane digestions. Functions of what cells are violated?
- A. Columnar with brush border**
  - B. Columnar without brush border
  - C. Goblet
  - D. Paneth cells
  - E. Endocrinocytes**
21. Absence of specific structures of a relief of the small intestine is observed at endoscopic examination of the patient with chronic enterocolitis (inflammation of the intestine). What components determine the relief of the mucous membrane of the organ?
- A. The circular folds, villi and crypts**
  - B. Fields, folds, pits
  - C. Gastry, villi, crypts
  - D. Spiral folds
  - E. Fields, villi**
22. Some diseases of the small intestine are associated with dysfunction of the exocrinocytes with acidophilic granules (Paneth cells). Where this cells are?
- A. At the bottom of intestinal crypts**
  - B. At the apical part of the intestinal villi
  - C. On the lateral surfaces of the intestinal villi
  - D. At the transition of the villi in the crypt
  - E. In the upper part of intestinal crypts**
23. Quantitative relationships between the epitheliocytes of the mucose are changed in some diseases of the large intestine. What types of cells predominate in the epithelium of the crypts of the large intestine is normal?
- A. Goblet cells**
  - B. Columnar villous epitheliocytes
  - C. Endocrinocytes
  - D. Cells with acidophilic granules
  - E. Undifferentiated cells**
24. Tumor that has origin from the mucose of the rectum (anal region) was detected during rectoromanoscopy. From what epithelium this tumor was formed?
- A. Stratified squamous non-keratinizing**
  - B. Simple columnar glandular
  - C. Simple columnar with brush border
  - D. Simple cuboidal
  - E. Transitional epithelium
25. Increase in the number of the glandulocytes with oxyphilic cytoplasm revealed by histological examination of the aspiration biopsy of the gastric mucosa in a patient suffering from peptic ulcer. Which component of the gastric juice these cells produce?
- A. Hydrochloric acid**
  - B. Mucus
  - C. Pepsinogen

- D. Gastrin
  - E. Secretin**
26. In histological slide organ of the digestive tract is visible. Its wall consists of four layers: mucosa, submucosa, muscle and serosa. The mucous has folds and pits. What organ has this relief?
- A. Stomach**
  - B. Esophagus
  - C. Duodenum
  - D. Small Intestine
  - E. Appendix**
27. In slide a section of the digestive tube wall is represented. Mucosal relief is presented by pits. The surface of the pits is covered by columnar epithelium, in which all cells lie on a basal membrane, the apical part of the cells is filled with droplets of mucoïd secretions. What organ has this epithelium?
- A. Stomach**
  - B. Small Intestine
  - C. Colon
  - D. Esophagus
  - E. Appendix**
28. In histological slide organ is visible, in the lamina propria of which simple tubular glands, consisting mainly of chief, parietal, mucous and endocrine cells, are located. Indicate the type of the glands.
- A. Fundic glands of the stomach**
  - B. Pyloric glands of the stomach
  - C. Cardiac glands of the stomach
  - D. Esophagus glands proper
  - E. Cardiac glands of the esophagus**
29. The patient with chronic atrophic gastritis has symptoms of hypochromic anemia. Violation of function of what cells of the gastric glands can explain the development of the anemia?
- A. Parietal cells**
  - B. Chief cells
  - C. Additional cells
  - D. Cervical cells
  - E. Endocrine cells**
30. The patient has a low gastric acidity. What cells of the gastric glands caused this condition?
- A. Parietal**
  - B. Chief
  - C. Mucous
  - D. Endocrine
  - E. Cervical
31. Process of keratinization of the epithelium was found in biopsy of the mucous of a esophagus of the patient. Which of the following types of epithelium covering the mucous membrane of this organ is normal?
- A. Stratified squamous non-keratinizing**
  - B. Simple squamous
  - C. Pseudostratified ciliated
  - D. Simple columnar
  - E. Stratified squamous keratinizing**

32. Significant impairment of a process of regeneration of an epithelium of a mucous membrane of a small intestine was found in cancer patients after radiotherapy. What cells of the epithelium were damaged?
- A. Columnar epitheliocytes without brush border in the crypts**
  - B. Columnar epitheliocytes with brush border
  - C. Goblet exocrinocytes
  - D. Endocrine cells
  - E. Exocrinocytes with acidophilic graininess (Pannet's)**
33. Pernicious anemia developed in patient after radiation therapy for cancer of a stomach. Reason - damage to cells that produce intrinsic factor. Which of the cells of the gastric glands were damaged?
- A. Parietal cells**
  - B. Chief exocrinocytes
  - C. Cervical mucocytes
  - D. Endocrinocytes
  - E. Additional mucocytes
34. Doctor found syndrome of acute enterocolitis (inflammation of the small intestine) with violation of the processes of digestion and absorption of the products in the patient. Damage of what intestinal epithelial cells are responsible for such violations?
- A. Columnar epitheliocytes with brush border**
  - B. Columnar epitheliocytes without brush border
  - C. Goblet exocrinocytes
  - D. Endocrine cells
  - E. Exocrinocytes with acidophilic graininess**
35. Proteins are poorly digested in the stomach of the patient. Analysis of gastric juice showed low acidity. The function of what stomach cells is broken in this case?
- A. Parietal cells**
  - B. Chief exocrinocytes
  - C. Mucocytes
  - D. Endocrinocytes
  - E. Cervical mucocytes
36. Total hyperacidity was found in women 56 years old during pH-metry of gastric juice. With dysfunction of which cells of the gastric glands it can be connected?
- A. Parietal cells**
  - B. Chief exocrinocytes
  - C. Cervical mucocytes
  - D. Additional mucocytes
  - E. Endocrinocytes
37. Ulcer formed in the small intestine of the patient after radiation therapy for tumors of the liver. Reason - inhibition of mitotic activity of the cells that are responsible for the regeneration of the surface epithelium of the small intestine. Name these cells.
- A. Columnar epitheliocytes without brush border in crypts**
  - B. Columnar epitheliocytes
  - C. Goblet exocrinocytes
  - D. Endocrine cells
  - E. Exocrinocytes with acidophilic graininess**
38. The patient complains of pain in the stomach. Gastroscopy revealed the presence of small-sized ulcers in the fundus of the stomach. Violation of function of which cells of the gastric mucosa was one of the reasons of mucosal damage?
- A. Surface epithelium cell producing mucous secretion**

- B. Parietal cells of the gastric glands that produce chloride and hydrogen ions
  - C. Chief exocrinocytes producing pepsinogen
  - D. Endocrinocytes producing somatostatin
  - E. Endocrinocytes producing serotonin**
39. The mucous epithelium of the esophagus of the patient has been damaged due to burn acetic essence. What cells of the surface epithelium are the source of reparative regeneration?
- A. Basal cells**
  - B. Squamous cells
  - C. Spinosum cells
  - D. Ciliated cells
  - E. Endocrine cells**
40. In histological slide a mucosa of the organ is represented. Columnar cells with brush border and Goblet cells are defined on the surface of the villi in the epithelial layer. What organ has these cells?
- A. Small intestine**
  - B. Stomach
  - C. Large intestine
  - D. Ureteral
  - E. Bronchus**
41. Substantial reduction or full absence of parietal cells in the stomach glands was observed in patient biopsy material. Mucosa of what stomach area was studied?
- A. Pylorus**
  - B. Fundus
  - C. Cardiac department
  - D. Body of stomach
  - E. Transition esophagus into the stomach**
42. Full update of the small intestine epithelium occurs within 3 days due to active proliferation of undifferentiated cells. Indicate their localization.
- A. Bottom of the crypts**
  - B. Top of the villi
  - C. Base of the villi
  - D. Lateral surface of the villi
  - E. Lamina propria
43. Insulin injection for evaluation of the completeness of vagotomy is accompanied by a significant increase in the acidity of gastric juice. What cells of the gastric glands provide this process?
- A. Parietal**
  - B. Endocrine
  - C. Chief
  - D. Mucosal
  - E. Cervical**
44. Damage to the epithelium of the excretory ducts of the salivary glands is observed in chronic inflammatory processes. What epithelium will be damage in the striated ducts of the major salivary glands?
- A. Columner epithelium with basal striation**
  - B. Squamous epithelium with basal striation
  - C. Cuboidal epithelium with basal striation
  - D. Double layer with basal striation
  - E. Stratified cuboidal
45. Epithelium of the stomach may change under the influence of various harmful factors that can cause stomach ulcers. What epithelium is damaged?

- A. Simple cylindrical glandular**
- B. Stratified squamous non-keratinizing
- C. Simple squamous
- D. Simple cuboidal
- E. Pseudostratified columnar**

46. Wall of the organ of the digestive system is presented in the histological slide. Numerous lymphoid nodules are in the lamina propria and submucosa. Call this organ.

- A. Appendix**
- B. Stomach
- C. Duodenum
- D. Jejunum
- E. Colon**

47. Striated muscle tissue of an organ of the digestive system is revealed by microscopic examination. From what organ biopsy was taken?

- A. Esophagus**
- B. Stomach
- C. Jejunum
- D. Ileum
- E. Appendix**

48. Granules containing dipeptidases and lysozyme have been found in the cytoplasm of epithelial cells of intestinal crypts by histochemical methods. Indicate these cells.

- A. Paneth cells**
- B. Columnar epithelial cells
- C. Goblet exocrinocytes
- D. A –cells
- E. S-cells**

49. The patient is treated for chronic gastritis for a long time. Changes in the mucosal epithelium of the stomach are observed by endoscopy. What epithelium is changed?

- A. Simple columnar glandular**
- B. Simple columnar with brush border
- C. Simple columnar ciliated
- D. Pseudostratified columnar
- E. Simple squamous**

50. Some diseases of large intestine lead to the changes in the quantitative ratio between mucosal epithelial cells. What cell types are normally predominant in the cryptal epithelium of the large intestine?

- A. Goblet cells
- B. Cells with acidophilic granules
- C. Endocrine cells
- D. Ciliated columnar epithelial cells
- E. Poorly differentiated cells



51. A patient complaining of heartburn has undergone biopsy of the gastric mucosa. In the sample there are numerous cells with oxyphilic cytoplasm in the glandular epi-thelium. Name these cells:

- A.Exocrine parietal cells
- B.Exocrine chief cells
- C.Mucous cells
- D.Epithelial cells
- E.Endocrine cells