

VOLGOGRAD STATE
MEDICAL UNIVERSITY
Department of Pathological Anatomy

**Diseases of the liver and biliary system. Hepatitis. Cirrhosis of the liver.
Liver cancer. Cholelithiasis.**

Guidelines for students
III year of medical faculty
for practical exercises in pathological anatomy

Volgograd

QUESTIONS OF THE CURRENT TEST CONTROL:

LIVER DISEASES

Choose one correct answer

1. Liver cells involved in the accumulation and metabolism of vitamin A:

- a) hepatocytes,
- b) stellate cells (Ito cells),
- c) stellate reticuloendotheliocytes (Kupffer cells),
- g) endothelial cells,
- e) fibroblasts of portal tracts.

Select all correct answers.

2. Macrovesicular steatosis can occur with:

- a) viral hepatitis C,
- b) alcoholic disease,
- c) obesity,
- g) viral hepatitis B,
- e) diabetes.

Choose one correct answer

3. The appearance of inflammatory infiltrate in the liver:

- a) regeneration
- b) cirrhosis,
- c) hepatoma
- d) dystrophy,
- e) hepatitis.

Choose one correct answer

4. A change in the color of the skin, sclera, serous and mucous membranes of the internal organs as a result of an increase in the concentration of bilirubin in the blood serum is:

- a) melanosis
- b) vitiligo, c) jaundice,
- g) cyanosis,
- e) nevus.

Select all correct answers.

5. Hereditary hyperbilirubinemia occurs in the syndrome:

- a) Krigler — Nayyar type I,
- b) Gilbert,
- c) Krigler — Nayyar type II,
- g) Peitz-Yegers,
- e) Dhabi to — Johnson.

Select all correct answers.

6. Hepatic cell failure can develop with:

- a) microvesicular steatosis,
- b) massive necrosis of hepatocytes,
- c) acute inflammation of the liver,
- g) cirrhosis of the liver,
- e) chronic inflammation of the liver.

Select all correct answers.

7. Morphological changes in cirrhosis of the liver:

- a) violation of the structure of the liver,
- b) regenerative nodes from hepatocytes,
- c) bridged fibrous septa,
- d) proliferation of stellate cells (Ito cells),

d) a change in the vascular network of the liver.

Select all correct answers.

8. Causes of death of patients with viral cirrhosis of the liver:

- a) pulmonary embolism,
- b) liver cell failure,
- c) complications of portal hypertension,
- g) hepatocellular carcinoma,
- e) generalized infection.

Select all correct answers.

9. The synthesis of collagen by activated myofibroblasts begins as a result of:

- a) destruction of the extracellular matrix,
- b) direct stimulation of toxins,
- c) apoptosis of stellate cells (Ito cells),
- g) production of cytokines by hepatocytes,
- e) cytokine production by infiltrate cells.

Select all correct answers.

10. Manifestations of portal hypertension:

- a) bleeding from the veins of the esophagus,
- b) congestive splenomegaly,
- c) ascites,
- g) the expansion of the veins of the anterior abdominal wall,
- e) cerebral hemorrhage.

Choose one correct answer

11. Liver biopsy of a 65-year-old man with jaundice revealed severe cholestasis, a foamy type of hepatocyte cytoplasm and lake bile. Conclusion:

- a) cirrhosis of the liver,
- b) obstruction of the biliary tract,
- c) Gilbert's syndrome,
- g) viral hepatitis B,
- e) viral hepatitis C.

Choose one correct answer

12. With hepatorenal syndrome in a patient with viral cirrhosis of the liver in a kidney biopsy, you can find:

- a) focal necrosis of the glomeruli,
- b) proliferative glomerulonephritis,
- c) necrotic nephrosis,
- g) the usual histological picture,
- e) interstitial nephritis.

Choose one correct answer

13. A man of 50 years for 20 years suffers from alcoholic cirrhosis of the liver with the development of syndromes of portal hypertension and hepatic cell failure. For this patient, a symptom is characteristic:

- a) hypoalbuminemia,
- b) thrombocytosis,
- c) hypogammaglobulinemia,
- g) hirsutism,
- d) increased levels of testosterone in the blood.

Choose one correct answer

14. Often the hepatitis virus causes a fulminant course of hepatitis:

- a) A
- b) B,
- c) C, r) D, D) E.

Select all correct answers.

15. Characterization of viral hepatitis A:

- a) benign cyclic course,
- b) fecal-oral transmission,
- c) low mortality,
- g) the development of cirrhosis of the liver,
- e) lifelong immunity.

Select all correct answers.

16. Characterization of viral hepatitis B:

- a) vertical transmission path,
- b) the small size of the virus with defective RNA,
- c) prolonged persistence of the virus in the body,
- g) the formation of carriage,
- e) parenteral route of transmission.

Select all correct answers.

17. Characterization of viral hepatitis C:

- a) parenteral route of transmission,
- b) lack of effective immunity,
- c) low incidence of liver cirrhosis,
- d) high frequency of chronicity,
- e) mild clinical course.

Select all correct answers.

18. Characterization of viral hepatitis D:

- a) low frequency of chronicity,
- b) occurs in homosexuals,
- c) transforms hepatitis B into a fulminant form,
- g) occurs in patients with hemophilia,
- e) hepatic cell carcinoma develops.

Select all correct answers.

19. In a liver biopsy sample of a 38-year-old man with acute viral hepatitis B, the following were found:

- a) hydropic degeneration of hepatocytes,
- b) infiltrate in the parenchyma and portal tracts,
- c) the expansion of portal tracts due to fibrosis,
- d) apoptotic bodies (Councilman's bodies),
- e) merging and / or bridge necrosis of hepatocytes.

Select all correct answers.

20. In a liver biopsy sample of a 40-year-old woman with mild chronic hepatitis B virus, the following were found:

- a) preserved lobular and beam structure,
- b) periportal fibrosis,
- c) infiltration in portal tracts,
- g) severe cholestasis,
- e) apoptotic bodies (Councilman's bodies).

Select all correct answers.

21. In a liver biopsy of a man of 25 years with chronic viral hepatitis C found:

- a) macrovesicular steatosis of hepatocytes,
- b) the formation of lymphoid follicles in the portal tracts
- c) merging and / or bridge necrosis of hepatocytes,
- d) apoptotic bodies (Councilman's bodies),
- d) the expansion of portal tracts due to fibrosis.

Select all correct answers.

22. Macroscopic characteristics of alcoholic liver steatosis:

- a) an increase in the size of the organ,
- b) soft consistency,
- c) smooth surface
- d) yellow color
- e) many rounded foci in the parenchyma.

SITUATIONAL OBJECTIVE

A 60-year-old patient suffers from chronic alcoholism for 30 years. When examining the liver is dense, the surface is tuberos. On the anterior abdominal wall, the veins are dilated, the spleen is palpated. A liver biopsy was performed.

Select all correct answers.

23. The following were detected in the biopsy sample:

- a) monomorphic small nodes-regenerates,
- b) wide septa with close triads,
- c) macrovesicular steatosis of hepatocytes,
- g) leukocyte infiltrate in the stroma,
- e) Mallory bodies in hepatocytes.

SITUATIONAL OBJECTIVE

A woman 50 years old for 10 months is concerned about skin itching, fatigue. Serum levels of transaminases are slightly increased, the amount of alkaline phosphatase is significantly increased, high titers of antimitochondrial antibodies. During the examination, obstruction of the biliary tract was not detected. A liver biopsy was performed.

Select all correct answers.

24. The following were detected in the biopsy sample:

- a) granulomatous cholangitis,
- b) opaque vitreous hepatocytes,
- c) a decrease in the number of bile ducts,
- g) portal tract infiltration,
- d) the expansion of portal tracts due to fibrosis.

Choose one correct answer

25. To detect sclerosis in the liver, use:

- a) hematoxylin and eosin,
- b) PAS reaction
- c) toluidine blue,
- d) Sudan Sh,
- e) Perls reaction,
- e) picrofuxin.

4. List of recommended literature:**Basic literature:**

1. "Basic pathology" Vinay Kumar, Ramzi S. Cotran, Stanley L. Robbins, 1997.

Additional literature:

1. "Pathology. Quick Review and MCQs" Harsh Mohan, 2004.
2. "Textbook of Pathology " Harsh Mohan, 2002.
3. "General and Systemic Pathology" Joseph Hunter, 2002.
4. "General and Systematic Pathology " Ed. J.C.E. Underwood – Edinburgh: Churchill Livingstone, 1996 (2th).

5. "Histology for Pathologist" Ed. S.S.Sternberg – Philadelphia: Lippincott Raven Publ, 1997 (2th).
6. "Histopathology. A Color Atlas and Textbook" Damjanov I., McCue P.A. – Baltimore, Philadelphia, London, Paris etc.: Williams and Wilkins, A Waverly Co., 1996.
7. "Muir's Textbook of Pathology" Eds. R.N.M. MacSween, K. Whaley London: ELBS, 1994 (14th).
8. "Pathology" Eds. Rubin, J.L. Farber – Philadelphia: Lippincott Raven Publ, 1998 (3th).
9. "Pathology Illustrated" Govan A.D.T., Macfarlane P.S., Callander R. – Edinburgh: Churchill Livingstone, 1995 (4th).
10. "Robbins Pathologic Basic of Disease" Eds. R.S.Cotran, V.Kumar, T.Collins – Philadelphia, London, Toronto, Montreal, Sydney, Tokyo: W.B.Saunders Co., 1998 (6th).
11. "Wheater's Basic Histopathology. A Color Atlas and Text" Burkitt H.G., Stevens A.J.S.L., Young B. – Edinburgh: Churchill Livingstone, 1996 (3th).
12. "Color Atlas of Anatomical Pathology" Cooke R.A., Steward B. – Edinburgh: Churchill Livingstone, 1995 (10th).
13. "General Pathology " Walter J.B., Talbot I.C. – Edinburgh: Churchill Livingstone, 1996 (7th).
14. "Concise Pathology" Parakrama Chandrasoma, Glive R. Taylor.
15. "Pathology" Virginia A. LiVolsi, Maria J. Merino, John S. J. Brooks, Scott H. Saul, John E. Tomaszewski, 1994.
16. "Short lectures on pathology" Zagoroulko A., 2002
17. "Robbins pathologic basis of diseases" Cotran R., Kumar V., Collins T.
18. "General pathology" Dr. Fatma Hafez, 1979.
19. "Anderson's Pathology " Damjanov I., Linder J. – St. Louis: Mosby Inc., 1995 (10th).

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