Osh State University

Medical Faculty

Department "Biochemistry, Pathophysiology and Pharmacology"

**«APPROVED»**

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GUIDELINES FOR TRAINEES

TO EXTRACURRICULAR WORK INDEPENDENTLY

SECTION: **SYSTEMIC PATHOPHYSIOLOGY**

TOPIC: **PATHOLOGY OF LIVER.**

Developed: teacher Ismailov I.Dzh.

Methodical instructions approved at a meeting of the department

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_ 20\_\_. Protocol number \_\_\_\_

OSH

**Study subject:** PATHOPHYSIOLOGY OF THE LIVER. JAUNDICE

**Aim of the lesson**: to study the causes and mechanisms of hepatic failure and jundance and their consequences.

**Format:** Preparing for the practical exercises.

**Questions for self-study:**

1. Studying the liver functions in the experiment. Functional trials.

2. Hepatitises. Cirrhoses. Fatty liver dystrophy. A role of alcohol and other factors in occurrence of liver diseases.

3. Insufficiency of the liver. Causes. Development stages. Their characteristics.

4. Hepatic coma. Kinds. Symptoms and mechanisms of their occurrence. Therapy principles. Concept about haemosorption. Liver transplantation.

5. Portal hypertensia. Causes. Characteristic of portal hypertension. Its kinds.

6. Jaundice. Kinds. The characteristic of bilirubine pigmental exchange infringements in different kinds of jaundices (haemolytic, liver, mechanical).

7. Cholemia. Basic mechanisms and manifestations of cholemia. Cholestasis. Causes of cholestasis. Disorders in human organism in cholestatic syndrome.

8. Gallstone disease. Etiology. Risk factors.

**List of practical skills**

1. To be able to calculate the color index

2. To be able to interpret the change in the main indicators of red blood.

**Recommendations to UIRS:**

1. Making the album with the relevant tasks relating to using educational and methodological literature.

2. Master the techniques of creative use of the program material on this topic by using problem solving.

**Self-control on test tasks:**

*1. The use of glucose in the treatment of hepatic patients is conditioned by:*

a) energy source

b) stimulates ammonia neutralisation

c) activates glyconeogenesis in a liver

d) source for formation of glucuronic acid

*2. Name three basic indicative enzymes of the liver damage:*

a) LDH (lactate dehydrogenase)

b) ALT (alanine aminotransferase)

c) AST (aspartate aminotransferase)

d) hexokinase

e) glycogensintase

*3. In diffusive lesion of hepatocytes following changes of protein level are observed:*

a) hypoalbuminemia

b) hypergammaglobulinemia

c) hyperalbuminemia

d) hypogammaglobulinemia

*4. How is the level of amino acids in blood variated in* liver *pathology?*

a) increases

b) it is depressed

c) does not variate

*5. Urea level in blood in liver pathology:*

a) increases

b) it is depressed

c) is not variated

*6. How is ammonia level in blood variated in liver pathology?*

a) it is depressed

b) raises

c) does not variate

*7. Fatty infiltrations of hepatocytes promote development of:*

a) increased mobilisation of fats from the depot

b) lipakaine deficiency

c) yield of fat from the liver

d) intensifying lipolisis in the liver

e) lack of ferments β - oxidations of fatty acids

*8. What is the main factor in development of ascites in cirrhosis?*

a) decrease in osmotic pressure of blood

b) augmentation of permeability of pots

c) portal hypertensia

d) Increased secretion of atrial natriuretic factor

*9. Termination* of *bile inflow into the duodenum causes the deficiency of following vitamins:*

a) В1

b) A

c) D

d) В12

*10. Lipolysis disturbances are caused инвуашсше ща following substances in the intestine:*

a) bile acids

b) bilirubin

c) cholesterol

LITERATURE:

1. Lecture material.

2. General and clinical pathophysiology / Ed. by A. V. Kubyshkin –

Vinnytsa: Nova Knyha Publishers. – 2011. – P. 546-566.

3. Pathology/ ed. by E. Rubin and J.L. Farber. – 2nd ed. – 1994. – P. 704–

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4. Pathophysiology/ ed. by C. Paradiso (Lippincott’s review series). –

1995. – P. 203-223.

5. Pathophysiology of disease: an introduction to clinical medicine/ ed. By

S. J. McPhee, W. F. Ganong. – 2006. – P.389 –429.

6. Internal medicine/ ed. by Harrisons. – 17 th edition. N. Y. – 2008. – P.

1918–2005.