Osh State University

Medical Faculty

Department "Biochemistry, Pathophysiology and Pharmacology"

**«APPROVED»**

Head. Chair of MD, PhD Muratov Zh. K.

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GUIDELINES FOR TRAINEES

TO EXTRACURRICULAR WORK INDEPENDENTLY

SECTION: **SYSTEMIC PATHOPHYSIOLOGY**

TOPIC: PATHOPHYSIOLOGY OF NERVOUS SYSTEM.

Developed: teacher Ismailov I.Dzh.

Methodical instructions approved at a meeting of the department

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OSH

**Study subject:** PATHOPHYSIOLOGY OF NERVOUS SYSTEM.

**Aim of the lesson**: to study the causes and mechanisms of nervous cell

damaging, consequence of organ denervation and pathogenesis of central

and peripheral paralysis.

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

**QUESTIONS:**

1. Etiology of nervous system disorders.

2. Neurone pathology Causes.

3. Disorders of synaptic transmission. Effects of different poisons. Myastenia gravis.

4. Denervation syndrome in somatic and internal organs.

5. Disturbances of locomotion. Central and peripheral paralysis. The causes.

6. Hyperkinesias. Kinds. The causes.

8. Disturbances of sensitivity. Character of sensitivity infringements depending on the level of damages of various departments of the evaluator of sensitivity. Broun-Sequards syndrome.

9. Pain, its role in organism’s ability to live. The causes and occurrence mechanisms. Kinds of pain (visceral and somatic), their characteristic. Cauzalgia. Nociceptive and antinococeptive systems.

**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. What is the consequence of corticospinal path integrity infringement?*

a) hyperkinesia

b) central paralysis

c) peripheric paralysis

d) ataxia

*2. What is the consequence of damage of peripheral motoneurons?*

a) hyperkinesia

b) central paralysis

c) peripheric paralysis

d) ataxia

*3. What signs are characteristic of the central paralysis?*

a) Intensifying of reflex movements

b) Absence of autokinesias

c) Absence of reflex movements

d) Intensifying of autokinesias

*4. What signs are characteristic of a peripheral paralysis?*

a) Absence of autokinesias

b) Absence of reflex movements

c) Intensifying of reflex movements

d) Intensifying of autokinesias

*5. Central paralysis is characterized by:*

a) Muscle tone increase

b) Muscle tone decrease

*6. Peripheral paralysis is characterized by:*

a) Muscle tone increase

b) Muscle tone decrease

*7. What sensitivity is changed due to damage of Gaulle and Burdach’s fascicles of the spinal cord?*

a) Absence of the proprioceptive sensitivities on the damaged side

b) Absence of the proprioceptive sensitivities on the opposite side

c) Absence of temperature and pain sensitivity on the damaged side

d) Absence of temperature and pain sensitivity on the opposite side

*8. What sensitivity is changed due to damage of lateral spinothalamic tract of the spinal cord?*

a) Absence of the proprioceptive sensitivities on the damaged side

b) Absence of the proprioceptive sensitivities on the opposite side

c) Absence of temperature sensitivity on the damaged side

d) Absence of temperature sensitivity on the opposite side

*9. What sensitivity is changed due to damage of posterior horns of the spinal cord?*

a) Absence of the proprioceptive sensitivities on the damaged side

b) Absence of the proprioceptive sensitivities on the opposite side

c) Absence of temperature sensitivity on the damaged side

d) Absence of pain sensitivity on the damaged side

e) Absence of temperature sensitivity on the opposite side

*10. What change of motor function occurs due to damage of Gaulle and Burdach’s fascicles of the spinal cord?*

a) central paralysis

b) Peripheric paralysis

c) Hyperkinesia

d) Sensitive ataxy

LITERATURE:

1. Lecture material.

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

Vinnytsa: Nova Knyha Publishers. – 2011. – P. 627-640.

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

1372– 1455.

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

1995. – P. 115-145.

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

by S. J. McPhee, W. F. Ganong. – 2006. – P.144 –177.

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

– P. 154–157, 2477–2570.