

Theme of the lesson: DISORDERS OF TROPHIC FUNCTION OF NERVOUS SYSTEM. NEUROGENOUS DYSTROPHIES

Aim: to get acquainted with the general conceptions of trophic function of nervous system disorders.

Main questions to the topic of the lesson:

1. Conception of cell trophic process
2. Conception of dystrophic process
3. Disorder of nervous trophic process
4. Atrophy

Literature:

1. General and clinical pathophysiology/ Gozhenko A.I. et al. – Odessa National Medical University. – 2001. – P. 211-222
2. Pathophysiology/ Gozhenko A.I., Gurkalova I.P. - Odessa National Medical University. – 2003. – P. 377-334

CONTROL QUESTIONS

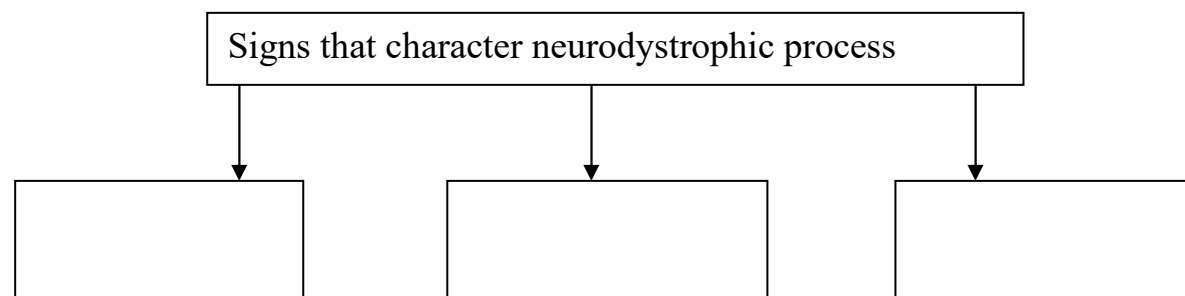
№	Instructions to the execution of the task	Answers of the students with the additions at the lessons
1.	Cell dystrophy- is ...	
2.	Neurodystrophic process- is...	
3.	Trophogens- are...	
4.	Normotrophogens- are...	
5.	Pathotrophogens- are	

6.	Structure disturbances by neurodystrophy	
7.	Functional changes	
8.	Disorders of metabolism	

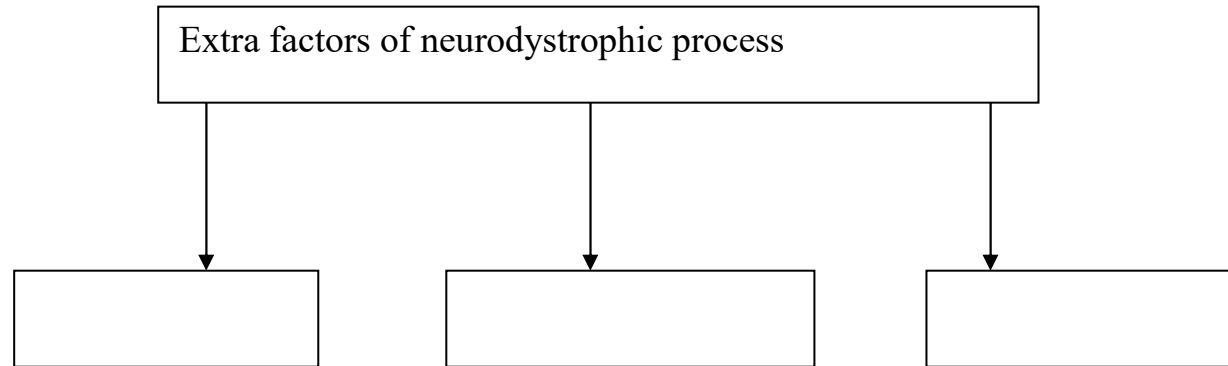
Task 1. List down the sources of trophogens?

1. _____
2. _____
3. _____

Task 2. Fill the scheme



Task 3. Fill in the scheme



Task 4. What can provoke the cerebral hemorrhage?

Task 5. What is the main cause of cerebral microcirculation disorders?

Task 6. What mechanism of neurotrophic regulation do you know?

1.

2.

3.

Task 7. What provokes the increase of osmotic pressure in cerebral tissue?

TASK 8. *To solve clinic-patophysiological tasks.*

A 55- year- old man has a diagnosis of he cerebral ischemia. In blood analysis: thrombocytopenia.

What causes can be basic for making a diagnosis?

TASK 10. *Solve the tests for self-control*

1. A 30-year-old woman after the neurosis (hysteria) treatment complains of loss of hair sclerotrichia, dermatitis, appearing of ulcer on shank. Name the main factor in pathogenesis of neurodystrophy :
- A. disorder of cortical processes in cerebrum
 - B. disorder of peripheral nervous system
 - C. lesion of nervous endings
 - D. disorder of microcirculation
 - E. disturbances of spinal marrow
2. After the treatment in surgical department after a gunshot wound with sciatic nerve injury, a patient came to doctor a month later. He complains of persistent wound on the foot of injured leg. Ulcer is moist with that fluxes. Diagnosis was trophic ulcer with sciatic nerve injury origin. Mark the main factor in mechanism of ulcer development?
- A. all from enumerated take the role in mechanism of its development

- B. factor of nerve injury
 - C. factor of breaking- neuro- control underlying tissues
 - D. infections
 - E. disorders of microcirculation
3. A 30-year-old patient was delivered to the traumatic department. He complains of pains in epigastrium that amplifies in night time and calms after the food intake. During the year he had several nervous breakdowns in connection of cranio-cerebral trauma after an auto accident and a divorce. The patient is emotionally unbalanced, irritable. He smokes too much. On examination detected the ulcerous disease of duodenum. What is mechanism of disease development?
- A. neurodystrophic process
 - B. decrease of protective function of stomach tunica mucosa
 - C. hypersecretion
 - D. hyposecretion
 - E. achylia
4. A man who was treated at hospital about the gunshot wound of his right

- leg shank and trophic ulcer. 1,5 months later on the healthy leg appeared trophic ulcer. Mark what the main factor in mechanism of ulcer development?
- A. antidromity (two-sidedness) of impulse conduction
 - B. trauma, pathological impulse
 - C. shutdown
 - D. infection
 - E. disorders of microcirculation
5. After the repeated trigeminal and facial neuralgia, a patient came to the ophthalmologist about keratoleukoma and erosion of cornea. Mark what the main factor in mechanism of ulcer development?
- A. neurodystrophy connected with inflammation of trigeminus
 - B. trauma of cornea
 - C. infection
 - D. craniocerebral injury
 - E. neuromyolytic keratitis
6. A 24-year-old patient had heavy form of the influenza that was complicated with diencephalic

syndrome, dysautonomia and fever. There appeared signs of neurodystrophy: loss of hair, xerodermia, and dermatitis.

Destruction of which link of reflex arch can lead to neurodystrophy?

- A. destruction of hypothalamus
- B. destruction of cerebral cortex
- C. motor nerve
- D. sensory nerve
- E. destruction of all links of reflex arch

7. A 25-year-old patient after the crush syndrome of long-termed leg pressing developed the sensitivity for weak mechanic trauma of legs and infections. There are ulcers on his legs as well as erosion and atrophy of muscles. What is the key mechanism of neurodystrophy development?

- A. weakening or stopping of hormones production with traumed nerves.
- B. weakening of neurohormons transfer via axoplasmatic current
- C. change of the genetic code of denervated tissues' cells

D. disorder of proteins synthesis, appearing of autoantigens as a result-host reactions

E. all from enumerated take the role in mechanism of neurodystrophy development

8. A 40-year-old patient that has been treated in neurologic hospital in occasion of obsessional neurosis, came to doctor with vasoneurosis and heavy parodontosis. What is the mechanism of heavy form of parodontosis development in such case?

- A. generalized disorders in cerebral and hypothalamus cortex
- B. disorders of sympathetic nervous system
- C. disorders of parasympathetic nervous system
- D. endocrine disorders
- E. vasoneurosis

9. A 30-year-old patient after the influenza has vasoneurosis: paroxysmal disorders of arterial pressure, temperature, neurogastric dystonia, dry mouth, erosions on

tunica mucosa of mouth. What is the mechanism of such disorders?

- A. destruction of hypothalamus with infection or toxins
- B. destruction of peripheral nervous system
- C. destruction of nervous endings
- D. vascular disorders
- E. disorders of spinal marrow

10. A 27-year-old woman suffers during 2 years from bad form of hysteria. In connection with it she has regular treatment courses in mental hospital. During the last year complains of loss of hair sclerotrachia, dermatitis, appearing of ulcer on shank that treats badly. What is the key factor in pathogenesis of such neurodystrophy?

- A. disorder of cortical processes in cerebrum
- B. disorder of peripheral nervous system
- C. lesion of nervous endings
- D. disorder of microcirculation
- E. disturbances of spinal marrow

11. What centre in brain provide analysis of pain qualitative characteristics (intensity, allocation)?

- A. cerebellum
- B. reticular formation
- C. neocortex
- D. limbic system
- E. thalamus

12. What is the main cause of myasthenia?

- A. disorders in brainstem
- B. disorder of acetylcholine depositing in nervous endings
- C. disorder of acetylcholine transport
- D. block of neuro- muscular transmitting because of connection between antibodies and acetylcholine receptors with comparative receptors
- E. disorder of pyramidal and extrapyramidal system

13. Destruction of which function stays in basics of Parkinson's disease?

- A. pale globe
- B. cerebellum
- C. substantia nigra
- D. reticular formation
- E. red nucleus

14. A 37 -year -old patient came to clinic with poisoning with an unknown drug. It was marked quick involuntary movement of face muscles that imitates eyewink. What form of motor disorders of nervous system has patient?

- A. hyperkinesis
- B. hypokinesis
- C. akinesia
- D. ataxia
- E. –

15. Mark the cause of disorder of impulse neurotransmission:

- A. hypercalcemia
- B. inhibition of choline esterase
- C. deficit of cyanocobalamin
- D. deficit of ascorbic acid
- E. decrease of catecholamine in blood

For notes
