

### Nervous system

1. Do the abnormal reflexes appear during the damage of corticospinal pathway?
  1. Yes
  2. No
2. All of the following symptoms characterize the disease of motor units, except one:
  1. hypotonus
  2. hyperreflexia
  3. atrophy of muscle
  4. weakness
  5. Fasciculation
3. Disruption of neuromuscular junction could be all mechanisms, except one:
  1. blockade of acetylcholin (Ach) releasing from the nervous endings
  2. decrease of amount of Ach-receptors on postsynaptic membrane
  3. appearance of Ach-receptors outside of synaptic zone
  4. blockade of cholinesterase
4. Please, point out all symptoms which characterize the damage of peripheral nerve:
  1. hypotrophy of muscle
  2. loss of voluntary movements
  3. abnormal sensation (paresthesia)
  4. appearance of abnormal reflexes
  5. loss of reflex movements
5. All of the following features characterize the muscle during paralysis, which causes by damage of:
  - A. Upper motor neurons
  - B. Lower motor neuronsChoose the right characteristics for each group from listed below:
  1. decreased of muscle tonus
  2. atrophy of muscle
  3. absence of reflectors excitability
  4. increased of muscle tonus
  5. hypertrophy of muscle
  6. presents of reflector excitability
6. All of the following statements concerning Botulism are true, except one:
  1. weakness of skeletal muscles
  2. antibodies to Ach-receptors are present
  3. the release of Ach-from motor nerve endings is blocked
  4. the postsynaptic membrane of affected muscles responds normally to iontophoretically applied Ach
7. All of the following clinical or pathologic features concerning Myasthenia gravis are true, except one:
  1. weakness of skeletal muscles
  2. the weakness is reversed by anticholinesterase drugs
  3. the disease is frequently associated with thymoma
  4. the disease is frequently associated with hepatoma
  5. antibodies to Ach-receptors are present
9. Point out the clinical signs of Botulism.
  1. bradykinesia
  2. weakness
  3. blurred vision
  4. dementia
  5. diplopia
  6. ptosis
  7. large unreactive pupils
  8. tachycardia
8. The disease of motor units appears as a result of:
  1. the damage of primary motor area of cerebral cortex
  2. damage of ventral horn of spinal cord
  3. damage of peripheral nerves
  4. interruption of corticospinal pathway
  5. damage of the muscle
  6. disturbances of neuromuscular junction
10. The primary link of the Eaton-Lambert syndrome pathogenesis is:
  1. autoantibodies to calcium channels on the motor nerve terminals
  2. block of acetylcholinesterase
  3. autoantibodies to the nicotinic acetylcholine receptor at myoneural junction
  4. cleaving specific presynaptic proteins, preventing neurotransmitter release at both neuromuscular and parasympathetic cholinergic synapses
11. Point out the clinical signs of Alzheimer's disease.
  1. slowly progressive dementia
  2. memory loss
  3. choreiform movements
  4. decreased cognitive function
  5. expressionless facies
  6. disorientation
  7. stooped posture
  8. flexed posture
12. Point out the etiology of Parkinson's disease.
  1. idiopathic
  2. postencephalitis
  3. trauma
  4. autoimmune dysfunction
  5. toxins
  6. atherosclerosis
13. Which of the following changes are characteristic of Parkinson's disease?
  1. increased dopamine inhibition in the striatum
  2. decreased dopamine inhibition in the striatum
  3. a relative increase in acetylcholine function in the striatum
  4. a relative decrease in acetylcholine function in the striatum
  5. the increase in the functioning of GABA neurons
  6. increased inhibition or decreased movement
14. Which ways of treating Parkinson's disease can you point out?
  1. by administration of L-dopa
  2. by transplantation of dopamine-producing cells into the striatum
  3. by inhibiting cholinergic neurons in the striatum
  4. by inhibitors of monoamine oxidase
  5. by glutamate agonists
15. Does the atrophy of muscle appear during an upper motor neuron problem?
  1. Yes
  2. No
16. Disturbances of motor units appear during the diseases:
  1. Alzheimer's disease
  2. Parkinson's disease
  3. poliomyelitis
  4. Myasthenia gravis disease
  5. Duchenne muscular dystrophy

17. What is the role of Schwann cells in Wallerian degeneration?
  1. transport nutritious
  2. release growth factor for nervous cells
  3. phagocytosis of parts dead axon
  4. make the bridge between two parts of the interrupted axon
  5. make a free tubules in which the regenerated axon will growth
18. Disturbance of neuromuscular junction the poisoning by organophosphates causes by:
  1. decrease of acetylcholin (Ach) synthesis of motor nerve ending
  2. decrease of amount of Ach-receptors on postsynaptic membrane
  3. accumulation of Ach in synaptic cleft
  4. inhibition of acetylcholinesterase
19. Which of the motor disturbances caused by the damage of cerebellum:
  1. ataxia (abnormality of coordination)
  2. tremor at rest
  3. tremor during voluntary activity
  4. increase of muscle tonus
  5. disidiachokinesia
  6. decrease of muscle tonus
20. All of the following features characterize the interruption of motor axon, except one:
  1. degeneration of distal part of axon
  2. chromatolysis in soma of nervous cell
  3. atrophy of muscle
  4. hyperreflexia
  5. fasciculation
21. All of the following features are characteristic of Parkinson's disease, except one:
  1. muscle tremor
  2. muscle rigidity
  3. bradykinesia
  4. high level of dopamine in the Striatum
  5. degeneration of the nigrostriatal neurons
22. Match of the following disorders of the nervous system with their dominantly affected destruction (to each number choose the correct letter).
 

1. Alzheimer's disease	A. motoneurons
2. Myasthenia gravis disease	B. Substantia nigra
3. Parkinson's disease	C. cerebral cortex
4. Polimyelitis	D. neuromuscular junction
23. Which of the following signs are characteristic of Parkinson's disease?
  1. degeneration of the dopamine-secreting neurons in the substantia nigra and the locus ceruleus
  2. loss of pigmented cells in the substantia nigra, locus ceruleus and dorsal motor nucleus of the vagus nerve
  3. decreased dopamine in corpus striatum
  4. degeneration of GABA neurons in the striatum
  5. Lewy bodies are found in the substantia nigra
24. Point out the clinical features of Huntington's disease.
  1. increased movement
  2. ptosis
  3. choreiform movement
  4. progressive dementia
  5. depression
  6. stooped posture
  7. athetosis
25. All these features are characteristic of Alzheimer's disease, except one (point out it)
  1. neurofibrillary tangles
  2. Hirano bodies
  3. granulovacuolar degeneration
  4. Lewy bodies are found in the substantia nigra
  5. senile plaques (beta amyloid core)
26. Point out the clinical features of Myasthenia gravis.
  1. increased muscle fatigability
  2. the weakness is not aggravated by repeated effort
  3. ptosis
  4. diplopia
  5. dysphagia (problems with swallowing)
  6. disorientation
  7. repeated contraction of the affected muscles makes the symptoms worse
  8. muscle weakness
27. The primary link of Botulism pathogenesis is
  1. autoantibodies to calcium channels on the motor nerve terminals
  2. block of acetylcholinesterase
  3. autoantibodies to the nicotinic acetylcholine receptor at myoneural junction
  4. cleaving specific presynaptic protein, preventing neurotransmitter release at both neuromuscular and parasympathetic cholinergic synapses
28. Which of these following manifestations take place in the Eaton-Lambert syndrome?
  1. not aggravated by repeated effort
  2. muscular weakness
  3. dementia
  4. involvement of the ocular muscles
  5. loss of language
29. Point out the clinical features of Parkinson's disease.
  1. ptosis
  2. expressionless (masklike) face
  3. "pill-rolling" tremor
  4. choreiform movements
  5. slowness of voluntary movements (bradykinesia)
  6. stooped posture
  7. cogwheel rigidity
30. Which of these following features are characteristic of Huntington's disease pathogenesis?
  1. the gene for the disease is located on chromosome 4p
  2. mutant protein (huntingin) reduced the production of neurotrophic factor in the cerebral cortex
  3. the decreased of caspase activity
  4. increased inhibition
  5. glutamate stimulates neurons
  6. irreversible degeneration of GABA neurons in the striatum

31. Point out the possible etiology of Alzheimer's disease.
1. expansion of trinucleotide repeat on chromosome 4
  2. decreased choline acetyltransferase
  3. abnormal amyloid gene expression
  4. presence of apoprotein E4
  5. abnormalities involving nucleus basalis of Meynert
32. The primary link of myasthenia gravis pathogenesis is:
1. autoantibodies to calcium channels on the motor nerve terminals
  2. block of acetylcholinesterase
  3. autoantibodies to the nicotinic acetylcholine receptor at myoneural junction
  4. cleaving specific presynaptic proteins, preventing neurotransmitter release at both neuromuscular and parasympathetic cholinergic synapses
33. The Eaton-Lambert syndrome is associated with
1. thymic hyperplasia
  2. a tumor of the thyroid gland
  3. small-cell carcinoma of lung
  4. disturbance of lipid exchange
34. Point out the autoimmune diseases.
1. myasthenia gravis
  2. Parkinson's disease
  3. the Eaton-Lambert syndrome
  4. Botulism