

LIST OF PRACTICE TOPICS ON NEUROLOGY AND NEUROSURGERY FOR 4 CORSES STUDENTS OF THE MEDICAL FACULTY FOR THE 8 SEMESTER

8. Infection-inflammatory diseases of the nervous system (6 hours).

1. Classification of the meningitis. Meningococcal meningitis. Etiology, pathogenesis, symptoms, diagnosis, differential diagnosis, complications, treatment.
2. Enteroviral, parotitic meningitis: etiology, pathogenesis, symptoms, diagnosis, treatment.
3. Tuberculous meningitis. Etiology, pathogenesis, symptoms, diagnosis, complications, treatment.
4. Classification of the encephalitis. Herpetic encephalitis. Etiology, pathogenesis, symptoms, diagnosis, treatment.
5. Tick-borne encephalitis: eastern and western variants. Etiology, pathogenesis, symptoms, diagnosis, treatment, prevention.
6. Epidemic encephalitis Economo. Etiology, pathogenesis, symptoms, diagnosis, treatment.
7. Poliomyelitis. Etiology, pathogenesis, symptoms, diagnosis, treatment.
8. Parainfectious encephalomyelitis. Etiology, pathogenesis, symptoms, diagnosis, treatment.
9. Lesions of the nervous system in syphilis. Classification, symptoms, diagnosis, treatment.
10. Damage of the nervous system in HIV infection, pathogenesis, symptoms, diagnosis, treatment.
11. Creutzfeldt-Jacob disease. Etiology, pathogenesis, clinic, diagnosis, treatment.
12. Neuroborreliosis. Etiology, pathogenesis, stages, symptoms, diagnosis, treatment, prevention.

Examination of thematic patients. Self examination of patients and writing a case history

9. Vascular disorders of the nervous system (6 hours).

1. Clinical classification of the cerebrovascular disorders.
2. Transient ischemic attack, acute hypertensive crisis, transient global amnesia and acute hypertensive encephalopathy. Etiology, pathogenesis, symptoms, diagnosis, treatment.
3. Cerebral infarction. Etiology, risk factors, pathogenetic types (atherotrombotic, cardioembolic, hemodynamic, lacunar, hemorheologic).
4. Symptoms of cerebral infarction in the carotid, vertebral and basilar arteries.
5. Basic stroke therapy. Emergency medical treatment of the stroke. Primary and secondary prevention.
6. Differentiated therapy of cerebral infarction. Thrombolysis, surgical treatment.
7. Intracerebral hemorrhage. Etiology, pathogenesis, symptoms, diagnosis, drug therapy, surgical treatment.
8. Subarachnoid non-traumatic hemorrhage. Etiology, pathogenesis, symptoms, diagnosis, treatment. Indications for surgical treatment.
9. Instrumental methods for the diagnosis of vascular diseases of the nervous system.
10. Spinal blood supply disorders: classification, clinical courses, diagnosis, treatment.

Examination of thematic patients. Self examination of patients and writing a case history

10. Autoimmun diseases of the nervous system (6 hours).

1. Multiple sclerosis. Etiology, pathogenesis, symptoms, diagnosis, diagnostic criteria of McDonald, differential diagnosis
2. Multiple sclerosis. Principles of treatment (drugs, criteria for prescribing).
3. Acute disseminated encephalomyelitis. Etiology, pathogenesis, symptoms, diagnosis, treatment.
5. Myasthenia. Etiology, pathogenesis, classification, symptoms, diagnosis, differential diagnosis, treatment.
6. Myasthenic and cholinergic crises, symptoms, emergency care.
7. Acute inflammatory demyelinating polyradiculoneuropathy Guillain – Barré. Etiology, pathogenesis, symptoms, diagnosis, treatment.
8. Chronic inflammatory demyelinating polyradiculoneuropathy. Etiology, pathogenesis, symptoms, diagnosis, treatment.

Examination of thematic patients. Self examination of patients and writing a case history

11. Degenerative diseases of the nervous system (6 hours).

1. Parkinson's disease and parkinsonism syndrome. Etiology, pathogenesis, clinic, diagnosis. Drug therapy (principles of prescription and groups of drugs) and surgical treatment.
2. Amyotrophic lateral sclerosis. Etiology, pathogenesis, symptoms, diagnosis, treatment.
3. Alzheimer's disease. Etiology, pathogenesis, clinic, diagnosis, treatment, prevention.
4. Syringomyelia. Etiology, pathogenesis, symptoms, diagnosis, treatment.
5. Huntington's disease. Etiology, clinic, diagnosis, treatment.
6. Wilson disease. Etiology, pathogenesis, clinic, diagnosis, treatment.

Examination of thematic patients. Self examination of patients and writing a case history

12. Hereditary diseases of the nervous system. (6 hours).

1. Classification of the hereditary diseases of the nervous system. Genetic counseling, medical care for patients with genetic pathology.
2. Duchenne's myodystrophy. Etiology, pathogenesis, symptoms, diagnosis, treatment.
3. Limb girdle Erb's muscular dystrophy. Distal muscular dystrophy with the late onset (Welander type). Mode of inheritance, clinical features, diagnosing, differential diagnostics.
4. Spinal amyotrophy of childhood: types, clinic, diagnosis, treatment.
5. Hereditary polyneuropathy: classification, clinic, diagnosis, therapy.

6. Myotonia congenital. Etiology, pathogenesis, clinic, diagnosis, treatment.
7. Hereditary spastic paraplegia (Strumpell disease). Etiology, pathogenesis, clinic, diagnosis, treatment.
8. Spinocerebellar ataxia. Clinic, diagnosis, treatment.
9. Friedreich's disease. Etiology, clinic, diagnosis, treatment.

Examination of thematic patients. Self examination of patients and writing a case history

13. Disorders of the peripheral and autonomic nervous system (6 hours).

1. Epidemiology and classification of diseases of the peripheral nervous system.
2. Classification of the polyneuropathies.
3. Diphtheritic polyneuropathy. Etiology, pathogenesis, symptoms, diagnosis, treatment.
4. Diabetic polyneuropathy. Pathogenesis, symptoms, diagnosis, treatment.
5. Alcoholic polyneuropathy. Pathogenesis, symptoms, diagnosis, treatment.
6. Backbone osteochondrosis: etiology, pathogenesis.
7. Classification of the neurological disorders at the backbone osteochondrosis. Stages of the disease: reflex, radicular, compressive- ischemic.
8. Reflex and radicular syndromes of neurological manifestations of the backbone osteochondrosis at the cervical, thoracic and lumbosacral level: clinic, differential diagnosis
9. Compressive-ischemic syndrome C5 – C6, C7 – C8, L2 – L4, L5 – S1. Clinic, diagnosis.
10. Combined therapy and prevention of neurological manifestations of the backbone osteochondrosis. Indications for surgical treatment and its types.
11. Compression ischemic mononeuropathies of the median, ulnar, radial, femoral, sciatic, peroneal, tibial nerves: etiology, symptoms, diagnosing, treatment, prevention.
12. The syndrome of autonomic dysfunction. Diagnosis and treatment of diseases of the autonomic nervous system.

Examination of thematic patients. Self examination of patients and writing a case history

14. Epilepsy and seizures. Facial pain and headache (6 hours).

1. Epilepsy. Epidemiology, classification, etiology, pathogenesis. Classification of epileptic seizures. Symptoms of focal and generalized epileptic seizures.
2. Diagnosis of epilepsy. Differential diagnostics of the epileptic seizures, syncopes and hysterical seizures.
3. Status epilepticus. Emergency care for epileptic seizure and status.
4. Anticonvulsant therapy. Absolute and relative contraindications to work. Treatment of pharmaco-resistant epilepsy: drug therapy, ketogenic diet, surgical.
5. International classification of the facial pain and headache.
6. Migraine. Pathogenesis, classification, clinic, diagnosis, treatment, prevention.
7. Tension headache. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment and prevention.
8. Cluster headache. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment and prevention.
9. Trigeminal neuralgia. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment. Surgical treatment and its types.

Examination of thematic patients. Self examination of patients and writing a case history

15. Traumatic brain and spinal cord injury. Neurosurgical treatment of vascular diseases of nervous system (6 hours).

1. Epidemiology, classification, etiology, pathogenesis of the brain and spinal cord injury.
2. Mild traumatic brain injury: concussion and contusion of the brain. Clinic, diagnosis, treatment.
3. The moderate traumatic brain injury. Clinic, diagnosis, treatment.
4. Severe traumatic brain injury. Clinic, diagnosis, treatment.
5. Intracranial traumatic hemorrhages. Clinic, diagnosis, methods of surgical treatment.
6. Peculiarities of the traumatic brain injury in children, elderly and old ages and injuries due to alcohol intoxication.
7. Prevalence, mechanisms, classification, pathogenesis of spinal cord injury. Diagnosis of the level and degree of the spinal cord lesion (concussion, contusion, compression). The principles of conservative and surgical treatment.
8. Complications and sequelae of the traumatic brain and spinal cord injury. Emergency care and transportation of the patients. The principles of rehabilitation.
9. Carotid-cavernous anastomosis. Etiology, symptoms, diagnosis, treatment.
10. Cerebral aneurysms. Etiology, symptoms, diagnosis, surgical treatment.
11. Arteriovenous malformations. Symptoms, diagnosis, surgical treatment.
12. Surgical treatment of occlusive processes of extra- and cerebral vessels.

Examination of thematic patients.

Public defense of the case history. Computer testing for general neurology and topical diagnostics.

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