

Subarachnoid haemorrhage is associated with

- a. Dysphasia
- b. Hemiplegia
- c. Sudden onset and severe headache
- d. Severe vertigo
- e. Sudden loss of visual fields

Main cause of ischemic stroke in old-age people

- a. Hypotension
- b. Atherosclerosis
- c. Smoking
- d. Vessels abnormality
- e. Obesity

Embolism usually is associated with

- a. Hypertension
- b. Physical exertion
- c. Cardiac arrhythmia
- d. Hot bath
- e. Diabetes mellitus

Hemianopia during stroke is caused by pathology of

- a. Posterior carotid artery
- b. Internal carotid artery
- c. Basilar artery
- d. Vertebral artery
- e. Subclavian artery

The best method of differential diagnose between ischemic stroke and intracerebral haemorrhage

- a. Clinical features
- b. CSF analysis
- c. CT
- d. Ultrasound dopplerography
- e. X-ray

Main cause of subarachnoid haemorrhage in young-age people is

- a. Hypertension
- b. Atherosclerosis
- c. Smoking
- d. Vessels aneurism
- e. Obesity

Ischemic stroke is prevented by following except

- a. Corticosteroids

- b. Statins
- c. Aspirin
- d. Antihypertensive drugs
- e. Life style modification

Hemiparesis is most likely associated with occlusion of

- a. Anterior cerebral artery
- b. Medial cerebral artery
- c. Posterior cerebral artery
- d. Circle of Willis
- e. Basilar artery

Cardinal syndrome of subarachnoid haemorrhage

- a. Meningeal syndrome
- b. Brown- Sequard
- c. Dislocation syndrome
- d. Raised intracranial pressure syndrome
- e. Neuroendocrine syndrome

Most effective management for atherotrombosis treatment

- a. Trombolysis
- b. Antiaggregants
- c. Vasoactive drugs
- d. Surgical treatment
- e. Metabolic therapy

Main cause of haemorrhage in old-age people

- a. Hypertension
- b. Diabetes mellitus
- c. Smoking
- d. Vessels abnormality
- e. Obesity

Embolism is usually associated with

- a. Heart disease
- b. Smoking
- c. Hypertension
- d. Atherosclerosis
- e. Trombophlebitis

Patient 65 y.o. with ischemic stroke has got CN pathology on the right, hemiparalysis of the left extremities:

- a. Anterior cerebral artery
- b. Medial cerebral artery
- c. Posterior cerebral artery

- d. Carotid common artery
- e. Branch of basilar artery

Main diagnostic method of subarachnoid haemorrhage

- a. CT
- b. MRI
- c. EMG
- d. EEG
- e. Ultrasound dopplerography

Most effective management for intracerebral bleeding (rapture of aneurism)

- a. Procoagulating agent
- b. Surgical treatment
- c. Metabolic therapy
- d. Strict bed regiment
- e. Symptomatic therapy

Subarachnoid haemorrhage is associated with

- a. Sudden death
- b. Hemiplegia
- c. Sudden onset and severe headache
- d. Severe vertigo
- e. Sudden loss of visual fields

Which of the following is not typical for hemorrhagic stroke?

- a. Loss of consciousness
- b. Sudden onset
- c. Absence of headache
- d. Hemiplegia
- e. Nausea

Quadriplegia is usually typical for:

- a. Intracerebral hematoma
- b. Subarachnoid haemorrhage
- c. Pontine hematoma
- d. Intracerebellar hematoma
- e. None of the above

Haemorrhage usually occurs in

- a. Cerebellum
- b. Basal surface of brain
- c. Cortex zone
- d. Frontal lobe
- e. Occipital lobe

Main approach to differential diagnose between ischemic stroke and haemorrhage

- a. Clinical features
- b. CSF analysis
- c. CT
- d. Ultrasound dopplerography
- e. X-ray

Main cause of haemorrhage in young-age people is

- a. Hypertension
- b. Atherosclerosis
- c. Smoking
- d. Vessels abnormality
- e. Obesity

Which of the following is typical for hemorrhagic stroke

- a. Loss of consciousness
- b. Sudden onset
- c. Headache
- d. Nausea
- e. All of the above

Cardinal syndrome of subarachnoid haemorrhage

- a. Meningeal syndrome
- b. Focal cortical syndrome
- c. Dislocation syndrome
- d. Raised intracranial pressure syndrome
- e. Seizures

Intraventricular haemorrhage

- a. Causes sudden loss of consciousness
- b. Reveals itself with erythrocytes in CSF
- c. Causes seizures
- d. Causes loss of vision
- e. b) and c)

Risk factors of haemorrhage in old-age people, except

- a. Hypertension
- b. Atherosclerosis
- c. Heart arrhythmia
- d. Vessels abnormality
- e. Obesity

Main treatment of intracerebellar haemorrhage

- a. Anticoagulants
- b. Procoagulants
- c. Surgical
- d. TPA
- e. Antiaggregants

Seizures are possible

- a. In intraventricular haemorrhage
- b. In subarachnoid haemorrhage
- c. In ischemic stroke
- d. a) and b)
- e. all of the above

Main diagnostic method at subarachnoid haemorrhage

- a. CT
- b. MRI
- c. CSF analysis
- d. a) and d)
- e. Ultrasound dopplerography

Most effective management for haemorrhage treatment

- a. Procoagulating agent
- b. Surgical treatment
- c. Metabolic therapy
- d. Strict bed regiment
- e. Symptomatic therapy

Symptoms of Bell's Palsy:

- A. Loss of pain and temperature sensation on the face
- B. Unilateral hemi facial spasm
- C. Unilateral facial weakness
- D. Facial pain around the eyes
- E. Contralateral facial weakness.

Which of the following syndromes is caused by brain stem lesion?

- A. Brown Sequard syndrome

- B. Meniere's syndrome
- C. Horner's syndrome
- D. Weber's syndrome
- E. Parkinson syndrome

At a 60-year old patient one of the signs of pseudobulbar palsy is:

- A. Speech monotonous in quality
- B. Sternocleidomastoid and trapezius atrophy
- C. Absence of gag reflex
- D. Wasting and fasciculations of the tongue
- E. Primitive reflexes (pout, sucking and palmo-mental)

Brain structures regulating autonomic nervous system consist of the following structures except:

- A. Hippocampus
- B. Mediobasal cortex
- C. Lateral horn of spinal cord
- D. Reticular formation
- E. Hypothalamus

Activation of sympathetic nervous system produces all these effects except:

- A. Pupil dilatation
- B. Hyposalivation
- C. Increasing of heart rate
- D. Increasing peristalsis
- E. Increasing of arterial pressure

Clinical features of the the upper motor neuron (cortical) facial weakness

- A. Loss of frontal wrinkling
- B. Eye fail to close + Bell's sign
- C. Preserved function in upper face + contralateral flattening of nasolabial fold
- D. Loss of taste, lacrimation + hyperacusis
- E. Ipsilateral loss of nasolabial fold

Signs of bulbar palsy:

- A. Emotional lability (inappropriate laughing or crying)
- B. The jaw jerk is brisk
- C. The gag reflex is present
- D. Wasting and fasciculations of the tongue
- E. Primitive reflexes are present (pout, suckling and palmo-mental)

Cranial part of parasympathetic nervous system consists of:

- A. II, III, V, VI cranial nerves
- B. III, VII, IX, X cranial nerves

- C. III, VII, X, XII cranial nerves
- D. II, VII, IX, X cranial nerves
- E. III, VIII, IX, X cranial nerves

Sacral part of parasympathetic nervous system includes spinal segments:

- A. S1-S5
- B. S2-Co1
- C. L5-S2
- D. S3-S5
- E. S4-S5

Signs of hypothalamus damage:

- A. Visual hallucinations
- B. Motor system damage
- C. Neuroendocrine syndrome
- D. Sensory loss
- E. Hearing loss

Name partial seizures

- A. simple seizures (motor and sensory)
- B. complex seizures (when seizures is accompanied by any degree of impaired conscious level)
- C. seizures evolving to tonic\clonic convulsion
- D. myoclonic seizures
- E. A and B

Name international classification of epileptic seizures

- A. partial, generalized seizures
- B. unclassified seizures
- C. A and B
- D. absences, tonic\clonic seizures
- E. A,B and D

What is specialized epilepsy investigation?

- A. EEG
- B. MRI
- C. CT scanning
- D. ECG
- E. ENMG

This of the listed symptoms is not typical for migraine:

- A. Throbbing headache
- B. Neck stiffness
- C. Nausea
- D. Photophobia

E. Vomiting

What emergency complex of investigations is needed at head injury

- A. Skull X-ray, CT
- B. Skull X-ray, EEG, CT
- C. CT, MRI, EEG
- D. Neuromyography, CT, EEG
- E. Skull X-ray, CT, ultrasound dopplerography

After motor seizures the affected limb(s) may remain weak for some hours before return of function occurs. What is the name of this phenomenon?

- A. Todd's paralysis
- B. myasthenia
- C. myopathies
- D. polyneuropathies
- E. myelopathies

Etiology of epilepsy is:

- A. CNS infection
- B. vascular disease
- C. tumors
- D. no cause found
- E. all of the above

Name generalized seizures

- A. simple motor, sensory seizures
- B. myoclonic seizures, absences
- C. clonic, tonic, tonic-clonic seizures
- D. B and C
- E. some neonatal seizures

What drugs may cause seizures?

- A. antidepressants
- B. antipsychotics
- C. sympathomimetics
- D. antineoplastics
- E. all of the above

Diffuse, morning, bursting headache accompanied with nausea and vomiting is typical for:

- A. Raised intracranial pressure syndrome
- B. Migraine
- C. Head injury
- D. Epilepsy
- E. Stroke

Where is the second order neuron of olfactory nerve located?

- A. Nasal mucosa (upper respiratory tract)
- B. Mamillar bodies.
- C. Medial geniculate body.
- D. Hippocampus
- E. Olfactory bulb

Symptoms of CN III palsy:

- A. Ptosis, myosis, enophthalm
- B. Ptosis, mydriasis, divergent squint + contralateral hemiparesis.
- C. Ptosis, mydriasis, strabismus divergent
- D. Ptosis, myosis, exophthalm
- E. Diplopia, convergent strabismus

Subcortical centre of the optic nerve:

- A. optic chiasma
- B. retina
- C. optic radiation
- D. fissure calcarina
- E. lateral geniculate body

Symptoms of lesion of the nucleus tractus spinalis nervi trigemini:

- A. "onion skin" sensory loss
- B. herpetic vesicles on the face
- C. expression muscles weakness
- D. mastication muscles weakness
- E. taste abnormality

What muscle is innervated by CN IV?

- A. m. inferior oblique
- B. m. superior oblique
- C. m. rectus lateralis
- D. m. rectus medialis
- E. m. rectus inferior

Cause of right side hemianopia can include following except:

- A. Left geniculate body
- B. Left occipital cortex
- C. Left radiation optical
- D. Left optic nerve
- E. Left calcarine fissure

Nervus abducens supplies:

- A. m. ciliaris
- B. m sphincter pupillae
- C. m. rectus lateralis
- D. m. rectus medialis
- E. m. rectus inferior

Clinical features of trigeminal neuralgia:

- A. Headache attacks lasting 4-72 hours
- B. Diffuse facial pain + vomiting and photophobia
- C. Pulsating quality behind the eye
- D. Paroxysms of knife-like pain (lasting seconds)
- E. Associated sensory loss of face

Parasympathetic part of CN III innervates:

- A. m.ciliaris and m. sphincter pupillae
- B. m. ciliaris, m. sphincter pupillae and m. levator palpebrae superior
- C. m. cilisaris
- D. m. sphincter pupillae
- E. m. levator palpebrae superior

Ptosis, miosis, enophthalmos are present. Name this symptom:

- A. Millard-Gubler
- B. Horner's
- C. Weber's
- D. Brown-Sequard
- E. Gullien-Barre

Hyperkinetic syndromes such as chorea and athetosis are associated with pathological changes in:

- A. Motor area
- B. Hypothalamus
- C. Basal ganglia
- D. Cerebellum
- E. Spinal cord

Cog-wheel rigidity can be positive in case of:

- A. Cerebellar dysfunction
- B. Parkinson's disease
- C. upper motor neuron lesion
- D. Chorea
- E. Frontal lobe damage

Rebound phenomenon (Stuart-Holmes's sign) might associate with the damage to the:

- A. Cerebellum

- B. Putamen
- C. N.Caudatum
- D. Striatum
- E. Claustrum

This of the following speech disturbance would be expected in damage of cerebellum:

- A. Dysphonia
- B. Scanning speech
- C. Dysphasia
- D. Dysphagia
- E. Monotone speech

What causes intentional tremor?

- A. The cerebellum damage
- B. The basal ganglia damage
- C. The pyramidal tract damage
- D. Muscle weakness
- E. All of the above

Lesion to the extrapyramidal system results in all of the following except:

- A. Muscle weakness
- B. Athetosis
- C. Chorea
- D. Muscle dystonia
- E. Tremor

Hypotonic-hyperkinetic syndrome includes all of the following except:

- A. Muscle rigidity
- B. Muscle hypotonia
- C. Athetosis
- D. Chorea
- E. Muscle dystonia

Which of the following is not a sign of cerebellum lesion?

- A. Dysdiadochokinesis
- B. Muscle hypotonia
- C. Dysmetria
- D. Tremor at rest
- E. Intention tremor

Which area is involved in Parkinson's disease?

- A. Neostriatum
- B. Substantia nigra
- C. Pallidum

- D. Putamen
- E. Claustrum

Dysfunction of the basal ganglia includes:

- A. Intention tremor
- B. Scanning speech
- C. Muscle rigidity
- D. Dysmetria
- E. Nystagmus

Main clinical manifestation of spinal muscular atrophies type 2 is:

- A. progressive muscular weakness in the lower extremities, age of onset ranges from 2 to 15 years, tendon reflexes are decreased or absent;
- B. progressive hypotonia, involuntary movements;
- C. age of onset ranges from 20 to 30, progressive muscular weakness in the lower extremities;
- D. disturbance of gait, hyperreflexia, hypertonia;
- E. hypotonia, reflexes are normal, loss of vibration sense.

Main clinical manifestation of Huntington's disease is:

- A. hyperkinesia (chorea), progressive dementia;
- B. age of onset ranges from 2 to 5 years;
- C. dementia, pyramidal syndrome;
- D. gait as a dance, hypertonia of muscle, dementia;
- E. hyperkinesia, decrease of sensation.

Main clinical manifestation of neurofibromatosis type 2 is:

- A. loss of hearing, noise in the ear, café au lait spots rare, loss or decrease of vision;
- B. posterior subcapsular cataracts occur very rare, skeletal manifestations are absent;
- C. eighth nerve tumours are unilateral;
- D. eighth nerve tumours are bilateral, café au lait spots more than 10;
- E. 100% of patients have skeletal manifestation and loss or decrease of vision.

Main clinical manifestation of neurofibromatosis is everything except one:

- A. light brown patches on the trunk;
- B. subcutaneous neurofibromata lying along peripheral nerves;
- C. optic nerve glioma;
- D. plexiform glioma;
- E. hypophysial adenoma

The "gold standard" of Parkinson's disease treatment is:

- A. levodopa;

- B. bromocriptine;
- C. midantan
- D. midantan and bromocriptine.
- E. neurosurgery

Main clinical manifestation of Friedreich's disease is:

- A. ataxia, areflexia, loss of vibration sense and proprioception in the extremities, cardiomyopathy and musculoskeletal abnormalities;
- B. ataxia, cardiomyopathy and hyperreflexia;
- C. spasticity and loss of vibration sense and proprioception in the extremities;
- D. pes cavus (club foot), kyphoscoliosis and central hemiparalyses;
- E. age of onset ranges from 40 to 60 years, disturbances of balance is the initial symptom.

Main clinical manifestation of neurofibromatosis type 1 is:

- A. light brown patches on the trunk, subcutaneous neurofibromata lying along peripheral nerves, neurofibroma of peripheral nerve and optic nerve glioma;
- B. intraspinal neurofibroma only;
- C. scoliosis, mollusca fibrosa and hemiparesis;
- D. head ache, focal neurological symptoms, and increase of arterial pressure;
- E. plexiform neuroma, ataxia and hyperkinesis.

Main clinical manifestation of spinal muscular atrophies type 1 (Werdnig Hoffman' disease) is:

- A. age of onset ranges from birth to 6 month, general hypotonia (hypotonic posture), areflexia;
- B. age of onset ranges from 2 to 5 years, areflexia, ataxia;
- C. hemihypotonia and areflexia;
- D. hemihypotonia, hemihyporeflexia;
- E. hypertonia, age of onset ranges from birth to 6 month, hyperreflexia,

Main clinical manifestation of Duchenne dystrophy is;

- A. the first manifestation occurs between 20-30 years of age and it is muscular weakness;
- B. the first manifestation occurs between 3-5 years of age and it is muscular weakness;
- C. muscular weakness, pseudohypertrophia, hyperkinesis;
- D. muscular weakness, pseudohypertrophia, hyperreflexia;
- E. hyperkinesis, pes cavus (club foot).

Symptoms of Parkinson's disease:

- A. tremor of rest, athetosis of upper extremities;

- B. muscles rigidity, hyperreflexia, pathological reflexes;
- C. tremor of rest, rigidity as cogwheel, postural disturbance;
- D. hyperkinesia (chorea), change of vegetative state;
- E. change of gait, reflexes are not same on both sides, muscles tone is not same on both sides.

Typical clinical syndrome of amyotrophic lateral sclerosis

- a) Bulbar palsy
- b) Meningeal syndrome
- c) Raised intracranial pressure syndrome
- d) Parkinsonism
- e) Cerebellum disorder signs

Diagnostic method for myelitis

- a) MRI
- b) X-ray
- c) Lumbar puncture
- d) EEG
- e) Electroneuromiography

Clinical picture of neurosyphilis includes

- a) tabes dorsalis
- b) dysphasia
- c) parkinsonism
- d) seizures
- e) raised intracranial pressure syndrome

The following are characteristics of multiple sclerosis except:

- a) oligoclonal bands in CSF
- b) remitting-relapsing course
- c) retrobulbar optic neuritis
- d) upper motor neuron weakness of extremities
- e) raised intracranial pressure syndrome

Main clinical features of poliomyelitis

- a) Lower motor neuron weakness
- b) Upper motor neuron weakness
- c) Peripheral type of sensory disorder
- d) Conductive type of sensory disorder
- e) Pseudobulbar syndrome

Which structure is damaged in amyotrophic lateral sclerosis

- a) upper and lower motor neurons of bulbar muscles and in spinal cord
- b) only posterior horn of spinal cord
- c) only lateral column of spinal cord

- d) only anterior horn of spinal cord
- e) motor and sensory nuclei in Pons

Clinical picture of myelitis includes

- a) signs of transversal damage of spinal cord and intoxication
- b) meningeal signs
- c) raised intracranial pressure syndrome
- d) Bulbar syndrome
- e) Seizures

Etiological factor of poliomyelitis

- a) enterovirus
- b) retrovirus
- c) picornovirus
- d) E. coli
- e) Lamblia

Which medicine you will use for neurosyphilis

- a) acyclovir
- b) penicillin
- c) paracetamol
- d) furosemid
- e) dimedrol

Typical CSF findings in multiple sclerosis include all of the following except:

- a) mild mononuclear pleocytosis
- b) oligoclonal IgG bands
- c) decreased glucose
- d) elevation of IgG (in 90%)
- e) moderately elevated protein

The cardinal feature of the lower motor neuron weakness is:

- A. anaesthesia
- B. hyperreflexia
- C. muscle atrophy
- D. Babinski response
- E. clasp-knife spasticity

Which of the following is not indicative of damage to the pyramidal tract?

- A. Spasticity
- B. Hyperreflexia
- C. Babinski sign
- D. Muscle atrophy
- E. Muscle hypertrophy

Which sign is not typical for the upper motor neuron lesion?

- A. Muscle atrophy
- B. Hyperreflexia
- C. Pyramidal signs
- D. Increased muscle tone
- E. Babinski sign

All of the following are physiological reflexes except:

- A. Babinski reflex
- B. Abdominal reflex
- C. Conjunctival reflex
- D. Cremaster reflex
- E. Masseter reflex

Signs of conus medullaris lesion are all of the following except:

- A. Pyramidal signs
- B. Sphincter dysfunction
- C. Perianogenital sensory disorders
- D. Loss of anal reflex
- E. Sexual dysfunction

The cardinal feature of the upper motor neuron lesions is:

- A. Hyporeflexia
- B. Hyperreflexia
- C. Muscle atrophy
- D. Hypotonicity
- E. Fibrillations

The lower motor neuron weakness is a sign of lesion of:

- A. precentral gyrus
- B. anterior spinal horn
- C. Internal capsule
- D. Brain stem
- E. Lateral funiculus of the spinal cord

Clinical features of spastic posture:

- A. predominance in flexors of the arms and in extensors of the legs
- B. predominance in flexors of the arms and legs
- C. predominance in extensors of the arms and legs
- D. spasticity in all muscle groups
- E. in extensors of the arms and in flexors of the legs

The pyramidal tract does not include:

- A. Pyramidal decussation

- B. The internal capsule
- C. Thalamus opticus
- D. Lateral funiculus of the spinal cord
- E. precentral gyrus

Which reflex is preserved in case of upper motor neuron lesion:

- A. Knee reflex
- B. Abdominal reflex
- C. Triceps reflex
- D. Biceps reflex
- E. Ankle reflex

Which is not typical for the radial nerve lesion?

- a) Weakness of wrist flexion
- b) Weakness of wrist extension
- c) Wrist drop
- d) Weakness of finger extension
- e) All of the above

The patient walks with a "foot drop" and cannot stand on heel. What nerve is damaged?

- a) Tibial nerve
- b) Common peroneal nerve
- c) Sciatic nerve
- d) Obturator nerve
- e) Femoral nerve

Lower limb monoradiculopathy signs includes all of the following except:

- a) Backache
- b) Leg pain
- c) Paraesthesia
- d) Symmetrical sensory loss
- e) All of the above

The majority of intervertebral disk herniations occurs between:

- a) L2-L3
- b) C5-C6
- c) L5-S1
- d) C6-C7
- e) D12-L1

Which of the following is/are the sign(s) of an injury to the common peroneal nerve?

- a) Loss of plantar extension
- b) Loss of plantar flexion

- c) Loss of sensation on dorsum of foot and lateral aspect of leg
- d) Loss of sensation on sole of foot
- e) All of the above

The peripheral nervous system includes following structures except:

- a) The spinal horns
- b) The nerve roots
- c) Plexus
- d) Cranial nerves
- e) The peripheral nerves

Causes of radiculopathy include:

- a) Arachnoiditis
- b) Disc hernia
- c) Toxins
- d) Metabolic disorders
- e) Inherited disorders

In a patient with sensitive disorder in a shape of «glove and stocking distribution» what structures are damaged?

- a) Peripheral nerves
- b) Plexus
- c) Nerve roots
- d) Spinal cord
- e) Thalamus opticus

In a patient with «wrist drop» what nerve is damaged?

- a) Median
- b) Ulnar
- c) Radial
- d) Musculocutaneus
- e) Axillar

All of the following signs might occur in case of trigeminal nerve damage except:

- a) Paroxysmal attack of the pain
- b) Hypoesthesia on the face
- c) Presence of trigger zone
- d) Weakness of the muscles of facial expression
- e) Chewing muscles weakness

Cortical center of sensation is located in:

- a) Precentral gyrus
- b) Thalamus opticus
- c) Broka's center

- d) Postcentral gyrus
- e) Capsula interna

Brown –Sequard syndrome is caused by damage of

- a) posterior horn of the spinal cord
- b) cerebellum
- c) frontal lobe of brain
- d) one half of spinal cord
- e) anterior horn of spinal cord

Astereognosis occurs in case of damage of:

- a) posterior horn of the spinal cord
- b) parietal lobe of brain
- c) thalamus opticus
- d) capsula interna
- e) precentral gyrus

Patient has spinal cord damage on TH10 level, describe clinical picture

- a) loss of all types of sensation in the lower part of body and lower limbs
- b) loss of deep sensation in lower part of body and lower limbs
- c) loss of superficial sensation in lower part of body and lower limbs
- d) sensitive ataxia in the right extremities
- e) hypoesthesia in perianogenital area

Which sign will be absent if thalamus opticus is damaged

- a) contralateral hyperpathia
- b) hemianaesthesia of contralateral side
- c) sensitive ataxia of contralateral side
- d) contralateral hemiplegia
- e) contralateral hemianopia

Which type of sensory disorder will be present when right brachial plexus is damaged?

- a) loss of superficial sensation
- b) loss of all types of sensation in the right upper limb
- c) loss of all types of sensation on inner surface of upper limb and little finger
- d) loss of deep sensation on the right hand when superficial sensation is normal
- e) hyperpathia on the right hand

Conductive pathways of deep sensation cross midline on the level of

- a) medulla oblongata
- b) pons varolii
- c) border between medulla oblongata and spinal cord

- d) segmental level
- e) thalamus opticus

Clinical sign of Brown-Sequard syndrome is

- a) loss of all types of sensation below the level of damage
- b) bilateral loss of superficial sensation below the level of damage
- c) bilateral loss of superficial sensation below the level of damage
- d) loss of deep sensation on ipsilateral side and loss of superficial sensation on contralateral side below the level of damage
- e) loss of superficial sensation on ipsilateral and deep sensation on contralateral side below level of damage

Filling tingling sensation is called

- a) hyperpathia
- b) disaesthesia
- c) paraesthesia
- d) hypoaesthesia
- e) hyperaesthesia

Proprioception includes

- a) stereognosis
- b) light-touch sensation
- c) pain sensation
- d) joint position sense
- e) two points discrimination

Lower left side quadrant hemianopia is possible in case of lesion of:

- a) Right frontal lobe
- b) Right temporal lobe
- c) Left occipital lobe
- d) Right parietal lobe
- e) Optic chiasm

A 45-year-old patient presents with Broca's aphasia. Where is the site of lesion?

- a) Frontal lobe
- b) Temporal lobe
- c) Occipital lobe
- d) Parietal lobe
- e) Limbic system

Localizing signs to the temporal lobe may include

- a) Hemiparesis
- b) Olfactory hallucinations
- c) Hemisensory loss

- d) Jacksonian (motor) seizures
- e) Intention tremor

Patient with olfactory hallucinations may have:

- a) Irritation of the temporal cortex
- b) Ischemic stroke in frontal lobe
- c) Hemorrhagic stroke in occipital lobe
- d) Tumor in parietal lobe
- e) All of the above

Patient with stroke in the parietal lobe may have:

- a) Memory loss like “de ja vu”
- b) Scotoma
- c) Broka’s dysphasia
- d) Anosognosia
- e) All of the above

Localizing signs to the parietal lobe may include:

- a) Hemiparesis
- b) Olfactory hallucinations
- c) Hemisensory loss
- d) Wernicke’s aphasia
- e) Nystagmus

Lower right side quadrant hemianopia is possible in case of lesion of:

- a) Left frontal lobe
- b) Right temporal lobe
- c) Right occipital lobe
- d) Left parietal lobe
- e) Optic chiasm

Patient with gustatory hallucinations may have:

- a) Irritation of the temporal cortex
- b) Ischemic stroke in frontal lobe
- c) Hemorrhagic stroke in occipital lobe
- d) Irritation in parietal cortex
- e) All of the above

Patient with stroke in the temporal lobe may have:

- a) Memory loss like “ja me vu”
- b) Hearing loss
- c) Broka’s dysphasia
- d) Autotopognosia
- e) All of the above

In a 58-year-old man present with adverse seizures (patient's eyes and head turn to left side). Where is the lesion?

- a) Broca's area
- b) Wernicke's area
- c) Right postcentral gyrus
- d) Right supplementary area
- e) Right precentral gyrus

Patient with auditory hallucinations may have:

- a) Tumor in parietal lobe
- b) Hemorrhagic stroke in occipital lobe
- c) Irritation of the temporal cortex
- d) Ischemic stroke in frontal lobe
- e) All of the above

Localizing signs to the frontal lobe may include

- a) Bitemporal hemianopia
- b) Olfactory hallucinations
- c) Hemisensory loss
- d) Wernicke's aphasia
- e) Jacksonian (motor) seizures

Typical changes of CSF analysis in bacterial meningitis

- a) The glucose level is high
- b) Lymphocytes are more typical
- c) CSF usually clear and colorless
- d) Low protein level
- e) High cells count (polymorphs > 2000)

What is the color of CSF in bacterial meningitis?

- a. Pink
- b. Red
- c. White, yellow, or green
- d. Colorless
- e. All of the above

Lumbar puncture is not done in case of

- a. Head trauma
- b. Coma
- c. Papilloedema
- d. Diabetes mellitus
- e. All of the above

Causes of raised intracranial pressure include:

- a) Spinal tumors

- b) Myelitis
- c) Syringomyelia
- d) Tumor's of the skull base
- e) Ischemic stroke

A patient is brought into the emergency ward. He is unconscious and suffers from neck stiffness. What is the primary examination method?

- A. Lumbar puncture
- B. Ultrasound vessels examination
- C. Skull X-ray examination
- D. EEG
- E. Blood count

Where is the CSF absorbed?

- a) Dura mater
- b) Pia mater
- c) Chorioid plexuses
- d) Arachnoid villi
- e) Cerebral blood vessels

What is the color of CSF in viral meningitis?

- a) Yellow
- b) Red
- c) Pink
- d) Colorless
- e) All of the above

Symptoms of raised intracranial pressure include:

- a) Headache, vomiting, papilloedema, loss of vision
- b) Headache, fever, deterioration of conscious level
- c) Headache, vomiting, papilloedema, pyrexia
- d) Headache, fever, neck stiffness
- e) Headache, vomiting, anxiety, aura

Contraindications for lumbar puncture

- a) Diagnosis of meningitis
- b) Diagnosis of MS
- c) Diagnosis of epidural empiema
- d) Diagnosis of encephalitis
- e) Diagnosis of suspected subarachnoid hemorrhage

Reasons of raised intracranial pressure do not include:

- a) Abscess
- b) Hydrocephalus
- c) Tumor

- d) Brain edema
- e) Lumbar puncture

Typical changes of CSF analysis in TB:

- a) TB meningitis causes a high CSF protein $> 0,5$ g/l
- b) TB meningitis gives a low CSF glucose level $< 2,0$ g/l
- c) CSF usually turbid
- d) CSF usually yellow
- e) Polymorphonuclear cells maybe found in CSF > 100
- f)

What is the color of CSF in subarachnoid hemorrhage?

- a) Yellow
- b) Red
- c) Brown
- d) Colorless
- e) Red, pink or yellow-brown

Indications for lumbar puncture:

- a) Diagnosis of intracranial tumor
- b) Diagnosis of brain abscess
- c) Diagnosis of meningitis
- d) Diagnosis of MS
- e) Diagnosis of head injury (subdural hematoma)

Lumbar puncture is not done in case of

- a) Head trauma
- b) Coma
- c) Raised intracranial pressure
- d) Diabetes mellitus
- e) All of the above

Reasons of raised intracranial pressure include:

- a. Abscess
- b. Hydrocephalus
- c. Tumor
- d. A and C
- e. A,B,C