# #[2] Craniocerebral trauma #1

#### Specify signs of the epidural hematoma [3]:

- 1. Cellular-albuminous dissociation in the CSF.
- 2. Miosis on the hematoma side.
- 3. Mydriasis on the hematoma side.
- 4. Focal symptoms.
- 5. Urinary incontinence.
- 6. Intracranial hypertension syndrome.

#### The basic clinical displays subarachnoidal hemorrhage [2]:

- 1. Miosis on the hemorrhage side.
- 2. Mydriasis on the hemorrhage side.
- 3. Focal symptoms.
- 4. Blood cells in the CSF during LP.
- 5. Intracranial hypertension syndrome.
- 6. Presence of a "lucid interval".
- 7. Sensitivity infringements for polyneuritis type.

### Specify signs of the traumatic subarachnoidal hemorrhage [3]:

- 1. "Lucid interval".
- 2. Paresis finiteness's.
- 3. General cerebral symptoms.
- 4. Meningeal irritation.
- 5. Alternating syndromes.
- 6. Blood presence in the CSF.

#### Specify signs of the hemorrhages in the cerebral cavity [4]:

- 1. Paresis finiteness's.
- 2. Meningeal irritation.
- 3. Hormetonic syndrome.
- 4. Blood presence in CSF.
- 5. Brown-Séquard syndrome.

#### List intracranial hemorrhages depending on their localization [4]:

- 1. Parenchymatous.
- 2. Hematomyelia.
- 3. Hemothorax.
- 4. Subarachnoidal.
- 5. Subdural.
- 6. Epidural.

#### At what kinds of the craniocerebral trauma observed the "lucid interval" [2]:

- 1. Subarachnoidal hemorrhage.
- 2. Brain concussion.
- 3. Parenchymatous hemorrhage.
- 4. Epidural hematoma.
- 5. Subdural hematoma.

#### Specify the classification of the closed craniocerebral trauma [1]:

- 1. Hematomyelia, brain contusion, compression of a brain, DAI.
- 2. Brain concussion, brain contusion, contusion of spinal cord, hemothorax.
- 3. Brain concussion, brain contusion, DAI, hematomyelia.
- 4. Brain concussion, brain contusion, DAI, parenchymatous hemorrhage.
- 5. Brain contusion, DAI, contusion of spinal cord, parenchymatous hemorrhage.
- 6. Brain concussion, brain contusion, DAI, compression of a brain.

## Note pathogenetic mechanisms of the closed craniocerebral trauma [3]:

- 1. Molecular frustration behind Petit theory.
- 2. Ceruloplasminsynthesis infringements.
- 3. Copper conversion process infringements.
- 4. The "CSF push" theory.
- 5. The vascular theory.

#### Specify the clinical signs of the concussion of the brain [4]:

- 1. Loss of consciousness is obligatory and short.
- 2. Paresis and paralyses.
- 3. Headache, sweating and vomiting.
- 4. Vegetative infringements.
- 5. Speech disturbance.
- 6. Apraxia.
- 7. Focal neurologic deficits.

#### Specify the clinical displays the contusion of the brain [4]:

- 1. Blood-brain barrier defect.
- 2. Brown-Séquard syndrome.
- 3. Headache, sweating and vomiting.
- 4. Focal neurologic deficits.
- 5. Loss of consciousness is obligatory and short.
- 6. Meningeal irritation symptoms.

# After automobile accident the patient has lapsed into a coma. During examination: strabismus, bleeding and CSF leak from the ear. Your diagnosis [3]:

- 1. Subarachnoid haemorrhage.
- 2. Concussion of the brain.
- 3. Epidural hematoma.
- 4. Contusion of the brain.
- 5. Fracture of the base of the skull.

After the craniocerebral trauma the patient has knife-like headache in a nape, meningeal syndrome. CSF is sanguinolent. Your diagnosis [2]:

- 1. Epidural hematoma.
- 2. Subdural hematoma.
- 3. Concussion of the brain.
- 4. Subarachnoid haemorrhage.
- 5. Contusion of the brain.

Specify at what kinds of a craniocerebral trauma are observed focal symptoms of the brain injury [1]:

- 1. Epidural and subdural hematomas, intracerebral hematoma.
- 2. Subarachnoid haemorrhage, concussion of the brain, hematomyelia.
- 3. Intracerebral hematoma, subarachnoid haemorrhage, hemothorax.
- 4. Concussion of the brain, intracerebral haemorrhage, epidural hematoma.
- 5. Hemotorrachis, hematomyelia, subdural hematoma.

Specify the basic attributes of fractures of the skull base [1]:

- 1. Bleeding and CSF leak from the nose and ears, cranial nerves injury.
- 2. *Upper paraplegia, a bleeding from the nose.*
- 3. Brown-Sequard's syndrome, logophthalmus.
- 4. Cranial nerves injury, upper paraplegia.
- 5. Parkinson's disease, cranial nerves injury.

Name the clinical syndromes of the remote period of closed craniocerebral trauma [1]:

- 1. Hematomyelia, encephalopathy.
- 2. Polyneuropathy, epilepsy.
- 3. Arachnoiditis, epilepsy.
- 4. Epilepsy, hematomyelia.
- 5. Hematorrhachis, encephalopathy.

During a quarrel, a patient of 34 years got a blow with an axe on the head, the consciousness was not lost, no vomiting. By the time of examination a vast "scalping" type bleeding wound of the soft tissues of the left parieto-temporal area is noted. No general cerebral or focal symptomatology has been revealed. What checkup should be performed first of all [1]?

- 1. Hemostasis, wound suturing, tight bandaging, craniography in two projections.
- 2. Hemostasis, wound suturing, tight bandaging, MRI.
- 3. Tight bandaging and CT.
- 4. Hemostasis, wound suturing, tight bandaging, LP.
- 5. Hemostasis, wound suturing, tight bandaging.

A child of 5 years was admitted to the clinic with craniocerebral trauma. At the examination a not deep wound was noted, without damaging aponeurosis, in the parietal area. In craniography, a linear fracture of the parietal bone. To what type does this craniocerebral trauma belong [1]?

- 1. OCCT. Contusion of the brain. Linear fracture of the parietal bone. Wound of the parietal area.
- 2. CCCT. Concussion of the brain. Linear fracture of the parietal bone. Wound of the parietal area.
- 3. CCCT. Contusion of the brain. Linear fracture of the parietal bone. Wound of the parietal area.
- 4. OCCT. Concussion of the brain. Linear fracture of the parietal bone. Wound of the parietal area.

A patient damaged at construction was delivered to the neurosurgical clinic, as there was noted trauma with a blunt hard object. By the time of the examination there are complaints of an insignificant headache, nausea, general weakness, no focal symptoms. In the right parietal area there is edema and cyanosis of soft tissues. In craniography a linear fracture of the right parietal bone is noted. What diagnosis must be made to the patient [1]?

- 1. OCCT. Contusion of the brain. Linear fracture of the right parietal bone.
- 2. CCCT. Concussion of the brain. Linear fracture of the right parietal bone.
- 3. CCCT. Contusion of the brain. Linear fracture of the right parietal bone.

4. OCCT. Concussion of the brain. Linear fracture of the right parietal bone.

A patient of 26 years, as a result of an attack of a group of strangers got the trauma of the head, at the moment of trauma lost his consciousness, returned home on his own, was troubled with an insignificant headache, nausea, general weakness. Applied for medical aid in 24 hours as, despite confinement to bed, the headache aggravated, there appeared vomiting, diplopia, general weakness increased. What previous diagnosis in the patient can be assumed [1]?

- 1. OCCT. Contusion of the brain.
- 2. CCCT. Concussion of the brain.
- 3. OCCT. Concussion of the brain.
- 4. CCCT. Contusion of the brain.

A boy of 10 years, fell down from a bicycle, did not lose his consciousness, does not remember distinctly the mechanism of trauma, complains of a not significant headache, nausea, general weakness. Objectively - the state of a moderate severity, the child is flaccid, in the fronto-parietal area there is insignificant swelling of soft tissues, a spontaneous horizontal nistagmus is noted, tremor of hands, wet hands, other changes from the side of the neurological and somatic status have not been revealed. What previous diagnosis in the patient can be assumed [1]?

- 1. OCCT. Contusion of the brain.
- 2. CCCT. Concussion of the brain.
- 3. OCCT. Concussion of the brain
- 4. CCCT. Contusion of the brain.

A patient was admitted to hospital 30 min after the fight, in alcoholic intoxication. He was excited, there were ecchymosis and abrasion, on the left temporal region. 6 hours after the trauma: consciousness was 8 points by a Glasgow Coma Scale, weakness of the right extremities, periodic tonic cramps, left mydriasis. What caused the changes of the clinical picture [1]?

- 1. Subarachnoidal haemorrhage.
- 2. Development of the subdural haematoma.
- 3. Intraventricular haemorrhage.
- 4. Focal edema of the brain.
- 5. Alcoholic coma.

A teenager of 14 years old got impact in the parieto-temporal region on the right, lost consciousness for a short time. In 45 min. - coma 2, pulse - 50 per min., AP on either side - 170/110 mm Hg. The venous congestion was revealed on the eye fundus. Which pathogenetic mechanisms could cause such symptoms [1]?

- 1. Epileptic attack.
- 2. Disorder of the cardiac conduction.
- 3. Rising of the intracranial pressure.
- 4. Sick sinus syndrome.
- 5. Closed hydrocephalus.

A patient was admitted to hospital 40 minutes after a car accident, the emergency doctor informed, that the patient had risen and come out of the car by himself. The patient had vomiting, arrhythmia, loss of consciousness, cramps, accelerated, noisy respiration, AP - 200/120 mm Hg. What is the best treatment for the next 2 hours [1]?

1. Craniotomy.

- 2. Antihypertensive treatment.
- 3. Installation of the pacemaker.
- 4. Ventriculoperitoneal shunting.
- 5. Antiepileptic treatment.

A patient was found in the street without consciousness, with a smell of alcohol from the mouth. There were mydriasis on the right, the left-hand hemiparesis, bilateral pathological plantar marks, abrasion and a swelling in the right temporal region. From a CT-scan of the brain which has been carried out, it is possible to expect [1]:

- 1. Normal picture of the brain.
- 2. Intracranial haematoma.
- 3. Outside and inside hydrocephalus.
- 4. Dilating subarachnoid spaces.
- 5. Multifocal changes of the brain tissue.

A patient was beaten 2 hours ago, marked a short-term loss of consciousness. Physical examination: logophthalmus, paresis of the mimic muscles on the left, reduction of hearing on the right, giddiness. Craniograms revealed the fracture of base of the skull, name it [1].

- 1. Fracture of scales of the occipital bone.
- 2. Fracture of the facial skull.
- 3. Fracture of the frontal bone.
- 4. Fracture of the pyramid of the temporal bone.
- 5. Fracture of the parietal bone.

A patient of 23 years old had a loss of consciousness, vomiting after the transport trauma. Physical examination: acyanotic, consciousness is clear, the pupils are equal, a horizontal nystagmus, the motor and sensitive disorders are not present. What CT-signs confirmed the diagnosis of concussion of the brain [1]?

- 1. The ventricular system is deformed.
- 2. Dilatation of basal cysterns.
- 3. Focal changes of density of the brain.
- 4. The pathological changes are absent.
- 5. Increased density of the cerebral cortical layer.

A patient of 69 years old has received a trauma during falling, without losing consciousness, nausea, general weakness, a headache. Physical examination: consciousness is clear, predominance of reflexes on the left, craniograms showed linear fracture of the right parietal bone. On a carotid angiography -intracranial haematoma. What is the main sign of intracranial haematoma [1]?

- 1. Abundantly vascularized region.
- 2. Defect of filling of cerebral vessels.
- 3. Moderately vascularized region.
- 4. The vascular system is not displaced.
- 5. Avascular region is like a lens.

An injured person of 22 years old was admitted after the motorcycle accident. Consciousness by a Glasgow Coma Scale is 6 points, respiration is arrhythmic, AP - 170/100 mm Hg, paresis of a look upwards, gormeotonic cramps. On a CT-scan - increased volume of the brain with a ventricular compression, small focal changes in the corpus collosum. What is the diagnosis [1]?

1. Contusion of the brain of the severe degree.

- 2. Intraventricular haemorrhage.
- 3. Diffuse axonal damage.
- 4. Subarachnoidal haemorrhage.
- 5. Intracerebral haematoma.

A patient of 38 years old complains of headaches, reduction of memory, sleep disorders. 2 years ago he had contusion of the brain of the moderate degree. Objectively - microfocal neurological manifestation. The posttraumatic leptomeningeal fibrosis is diagnosed. What sign on a CT-scan is characteristic of this pathology [1]?

- 1. The median structures are displaced.
- 2. Deformation of lateral ventricules.
- 3. The subarachnoid spaces are badly differentiated.
- 4. Calcification of vascular plexuses.
- 5. Focal changes of density of the brain.

A patient of 27 years old has fallen from 3-4 meters of height. Consciousness by a Glasgow Coma Scale is 12 points, the pupils are similar, horizontal nystagmus, the face is symmetric and the reflexes are reduced, without essential asymmetry, linear fracture of the occipital bone.2 hours later -oppression of consciousness up to 8 points by a Glasgow Coma Scale. What will you do [1]?

- 1. Lumbar puncture.
- 2. Dehydration therapy.
- 3. Craniotomy in the region of the fracture.
- 4. Craniotomy in the temporal region.
- 5. Carotid angiography.

A 40-year old patient was admitted to hospital from the place of the car accident, consciousness by a Glasgow Coma Scale - is 12 points, on craniograms - linear fracture of the temporal bone on the left side. During examination: the state of the patient has quickly changed for the worse: an oppression of consciousness up to 8 points, cramps, the left pupil has extended. Make the diagnosis [1]:

- 1. Contusion of the brain of a severe degree.
- 2. Epidural haematoma.
- 3. Subdural haematoma.
- 4. Traumatic subarachnoidal haemorrhage.
- 5. Intraventricular haemorrhage.

A patient of 27 years old fell 2 days ago without losing of consciousness, in 7-8 hours after a trauma she had intense headache, photophobia, nausea. Physical examination: consciousness is 13-14 points by a Glasgow Coma Scale, nuchal rigidity, positive Kernig's symptom, hyperthermia. What preliminary diagnosis can you make on the basis of clinical picture [1]?

- 1. Intracranial haematoma.
- 2. Contusion of the brain, traumatic subarachnoidal haemorrhage.
- 3. Rupture of the arterial aneurysm.
- 4. Meningitis.
- 5. Concussion of the brain.

A 34-year old patient with the complaints of a headache, giddiness, nausea, weakness. 2 days ago she was beaten, she had a short-term loss of consciousness, vomiting. Physical examination: there are no signs of the organic pathology of the CNS. Which of the following methods can confirm the diagnosis of the concussion

of the brain [3]?

- 1. Echoencephaloscopy.
- 2. Caloric test.
- 3. MRI tomography.
- 4. Rheoencephalography.
- 5. Computer tomography.

A 10-year old child has fallen from a sport bar and hit his head. He has been conscious for several min., there was vomiting. Physical examination: acyanotic, spontaneous horizontal nystagmus, on craniograms - linear fracture of the occipital bone. A Kernig's symptom appeared on the 2nd day, the temperature increased up to 37.8 °C. Make the diagnosis [1].

- 1. Concussion of the brain.
- 2. Contusion of the brain, subarachnoidal haemorrhage.
- 3. Epidural haematoma.
- 4. Subdural haematoma.
- 5. Intraventricular haematoma.

A child was born at full-term, with the weight of 4,800. Delivery was prompt. Physical examination: cyanosis, disorder of respiration, absence of sticking reflex, general rigidity, cramps, nystagmus, unilateral mydriasis, strain of the large fontanel. What will the doctor do [1]?

- 1. Dynamic observation.
- 2. Craniotomy.
- 3. Lumbar puncture.
- 4. Subdural puncture.
- 5. Dehydration therapy.

A patient of 60 years old is brought from the place of the car accident in 40 min. Consciousness by a Glasgow Coma Scale is 8 points, the distinct focal neurological manifestation is not present, and there is an abrasion in the occipital region. In 1.5 hours consciousness is 6 points, bradycardia, an intracranial haematoma is suspected. Determine the place of craniotomy [1].

- 1. On the left in the temporal region.
- 2. On the right in the temporal region.
- 3. In the frontal region.
- 4. On either side in the temporal region.
- 5. In the occipital region.