Colloquium 2 – Situational tasks (examples)

Situational task:

Patient L. was admitted to the neurosurgery department with a traumatic brain injury. A diagnostic examination revealed an intracranial subdural hematoma.

1. What types of intracranial hematomas exist?

2. Explain the essence of this useful type of trepanation.

Situational task:

A patient with a traumatic brain injury was delivered to the neurosurgical department: there was a bleeding wound in the occipital region with damage to the bones of the skull and dura mater.

1. Describe the principles of primary surgical treatment of craniocerebral wounds.

2. What ways can you stop bleeding from the bones of the skull?

Situational task:

A 25-year-old patient complains of pain in the neck. From the anamnesis it is known that these pains arose after she ate a piece of fish with a bone. On palpation of the neck and upper chest area, pronounced subcutaneous crepitation attracts attention. A plain X-ray of the chest organs shows pneumomediastinum (the presence of air in the mediastinum).

1. Explain the appearance of air in the subcutaneous fatty tissue of the neck area?

2. What topographic-anatomical features of the relationships between the neck organs led to the possibility of such damage?

Situational task:

Male, 36 years old, condition after resection of the thyroid gland. Complaints of hoarseness that occurred immediately after surgery. On external examination, the wound was without pathology.

1. Damage to which anatomical structure can be assumed, indicate the features of its topography.

2. Note other possible complications of thyroid surgery.

Situational task:

After meningitis, the patient developed headaches and increased intracranial pressure. Hydrocephalus was diagnosed.

1. Indicate the sites of synthesis and resorption of cerebrospinal fluid.

2. Explain the further path of circulation of cerebrospinal fluid from the lateral ventricles of the brain.

Situational task:

As a result of the accident, the victim suffered a laceration located on the right side of his face. According to instrumental research methods, a comminuted fracture of the lower jaw branch at the level of the neck of the articular process was diagnosed. When revising the wound and removing free bone fragments, heavy bleeding began from its depths.

1. Describe the boundaries and list the contents of the temporopterygoid space.

2. What should the surgeon do to stop the bleeding?

Situational task:

A patient was admitted to the clinic with a diagnosis of purulent parotitis, which arose after a complication of an infectious disease. Surgical treatment is planned.

1. What anatomical structures pass through the thickness of the parotid gland?

2. Indicate possible ways of spreading the purulent process.

Situational task:

A patient who has been in a coma on mechanical ventilation for more than 10 days is recommended to undergo tracheostomy as planned. After surgical treatment, subcutaneous emphysema occurred in the neck area.

1. Define tracheostomy. Which types of tracheostomy are most often used in adults and which in children?

2. What is the reason for the development of subcutaneous emphysema in our patient?

Situational task:

There is a patient in the surgical department with a diagnosis of “Meningitis. Thrombosis of the cavernous venous sinus." From the anamnesis it is known that the patient, before the development of the main diagnosis, had a boil in the area of the right nasolabial fold.

1. Explain the connection between the purulent process and meningitis with thrombosis of the cavernous sinus.

2. What is the “danger triangle” of a face?

Situational task:

Patient F. was admitted to the emergency department with a diagnosis of open pneumothorax. However, a few minutes after admission, the patient experiences increasing shortness of breath, anxiety, chest pain, and it is noted that air does not come out of the open wound when exhaling.

1. Explain the term pneumothorax.

2. What complication did the patient have and why is it dangerous for the patient’s life?

Situational task:

A nursing mother consulted a surgeon at a local clinic about inflammation of the mammary gland. The doctor diagnosed “Mastitis” and suggested surgical treatment.

1. Name the structural features of the mammary gland.

2. Suggest the types of breast incisions for mastitis.

Situational task:

A patient developed a right-sided chylothorax after a road traffic injury to the chest.

1. Explain the term “right-sided chylothorax”, why is this situation dangerous?

2. Describe the syntopy of the thoracic lymphatic duct in the chest cavity.

Situational task:

Surgical treatment is recommended for a patient with a congenital heart defect - ventricular septal defect (VSD).

1. What two parts are distinguished in the structure of the interventricular septum?

2. Specify online access to perform open surgery.

Situational task:

During examination, the patient was diagnosed with pericardial effusion. It is recommended to perform a pericardial puncture. During the puncture, severe pulsating bleeding occurred.

1. Name the sinuses of the pericardium: their location and boundaries.

2. What anatomical structure was damaged in the patient during the puncture; name other possible complications?

Situational task:

The patient was diagnosed with open (persistent) ductus botellus. Surgical treatment of this defect is recommended.

1. Define this developmental defect.

2. Explain the essence of endovascular methods of surgical treatment of this defect.

Situational task:

Using the capabilities of endosurgery, the patient had a stent installed in the thoracic esophagus.

1. Give the location of the anatomical narrowing of the esophagus in the chest cavity.

2. Indicate possible complications of stenting of the thoracic esophagus.