

QUESTIONS TO THE COLLOQUIUM

«Topographic anatomy and operative surgery of head, neck and thorax»

Topographic anatomy and operative surgery of the head

- 1) Topographic anatomy of fronto-parieto-occipital region. Layers, cellular spaces, vascular-nerve bundles. Primary surgical treatment of cranial wounds.
- 2) Blood supply of cerebellar part of head: blood vessels of subcutaneous layer, spongy substances of cranial bones, dura mater, sinuses. Typical localization of intracranial hematomas. Meaning of spinal puncture in case of cranial traumas and diseases of brain.
- 3) Surgical anatomy of dura mater sinuses. Meaning of superficial cerebral veins and facial veins connection with sinuses of dura mater in case of inflammatory processes. Ways to perform hemostasis from sinuses of dura mater.
- 4) Topographic anatomy of temporal region and mastoid process. Projection lines of medial meningeal arteries, central (Roland) and lateral (Silvil) sulci. Ligation of medial artery of dura mater. Decompressive trepanation by Cushing and bone-plastic trepanation by Oliverckron: indications, main steps of surgery.
- 5) Blood supply of brain: carotid and vertebral-basilar pools, extra and intracranial parts of brain supplying arteries, routes for venous outflow. Ways to restore blood supply of brain due to occlusion of brachiocephalic trunk, carotid and vertebral arteries. Endovascular treatment of the aneurysms of brain supplying arteries.
- 6) Liquor routes in brain. Meaning of hydrocephalia. Puncture of anterior and posterior horns of lateral ventricles. Meaning of liquor draining operations.
- 7) Topographic anatomy of parotid-masticatory regions. Parotid glands, “weak places” of capsule, interaction of blood vessels and facial nerve. Requirements to facial incisions. Incisions in case of purulent parotitis.

Topographic anatomy and operative surgery of the neck.

- 1) Topographic anatomy of anterior neck triangle. Main vascular-nerve bundle. Carotid triangle. Operative approach and ligation of external carotid artery.
- 2) Surgical anatomy of cervical part of vagus nerve and sympathetic trunk. Vagosympathetic blockage by Vishnevsky (cervical approach).
- 3) Surgical anatomy of thyroid gland. Parathyroid glands. Subtotal subfascial resection of the thyroid gland by Nikolaev. Possible complications and prophylaxis.
- 4) Surgical anatomy of larynx and cervical part of trachea. Tracheostomy: indications, steps of surgery. Possible complications and their prophylaxis.
- 5) Surgical anatomy of pharynx and cervical part of esophagus. Esophagotomy, esophageal suture.
- 6) Topographic anatomy of posterior neck triangle. Puncture and catheterisation of subclavicular vein: indications, possible complications. Surgery approaches to subclavicular artery by Petrovsky and Janelidze.
- 7) Surgical anatomy of thoracic duct. Danger of traumatization of thoracic duct during surgery on esophagus. External drainage of thoracic duct. Lymphosorbition.
- 8) Fascias and cellular spaces of the neck. Localization of abscesses and phlegmons, distribution of purulent inflammation during neck phlegmon. Surgeries due to abscesses and phlegmons of the neck.

Topographic anatomy and operative surgery of thoracic cavity and thoracic wall.

- 1) Topographic anatomy of thoracic wall. Projective lines of thoracic organs and peritoneal organs, layers, vascular-nerve bundles, cellular spaces. Primary surgical treatment of penetrating wound of chest. Suturing of open pneumothorax.
- 2) Surgical anatomy of mammary gland. Routes of lymph drainage. Regional lymph nodes of mammary glands. Surgery because of purulent mastitis. Sectoral resection of mammary gland. Surgery because of mammary cancer. Plastic surgery on mammary glands.

- 3) Surgical anatomy of diaphragm. Anatomical correlation of diaphragm and inferior vena cava, esophagus and aorta. Meaning of diaphragmatic hernias. Usage of diaphragm sheaths in plastics.
- 4) Surgical anatomy of pleura. Pleural cavity. Intrapleural spaces. Puncture and drainage of pleural cavity. Types of thoracotomy.
- 5) Surgical anatomy of lungs. Hilum and root of lung. Lobar and segmental constitution. Surgical approaches to lungs. Suturing of lung wound, pneumonectomy. Contribution of surgeons in development of lung surgery (Spasokukotsky, Bakulev).
- 6) Mediastinum. Borders and its parts. Organs, blood vessels, nerves, lymph nodes and cellular-fascial structures. Displacement of organs due to pathological processes. Surgical anatomy of thymus. Extra- and pleural approaches to organs of mediastinum.
- 7) Surgical anatomy of heart and pericardium. Inborn and acquired heart diseases. Surgical treatment of heart and blood vessels diseases.
- 8) Surgical anatomy of heart and pericardium. Blood supply and innervation of heart. Operations due to coronary diseases. Pericard puncture, draining of pericardial cavity.
- 9) Surgical anatomy of thoracic part of esophagus. Surgical approaches to esophagus. plastic of esophagus by Rou-Herzen, Dobromyslov-Thoreck surgery.