Colloquium 2 - Theoretical issues

Head and neck.

1. Brain section of the head. Fronto-parieto-occipital region (borders, external landmarks, layers, fascia and cellular spaces, vessels and nerves). Bones of the cranial vault, features of their structure.

2. Features of the arterial blood supply to the integument of the cranial vault (sources, depth, course of blood vessels, significance during operations). Features of venous outflow, three layers of veins.

3. Brain section of the head. Temporal region (borders, external landmarks, layers, fascia and cellular spaces, connections with neighboring areas, muscles, blood vessels and nerves).

4. Meninges of the brain. Interthecal spaces, significance in traumatic brain injuries. The concept of penetrating and non-penetrating wounds of the skull. Dura mater, its sinuses. Scheme of liquor circulation.

5. Topography of the middle meningeal artery (course, depth, projection onto the skin). Scheme of the Krenlein-Bryusova cranial topography - projection onto the surface of the cranial vault of the middle meningeal artery, sinuses of the dura mater, main grooves and convolutions of the cerebral hemispheres, cerebral ventricles.

6. Topography of the arteries of the brain (sources, course, significance in pathology), the arterial circle of the base of the brain, features in dolichocephals and brachycephals.

7. Inner base of the skull. Cranial fossae (borders), openings of the anterior, middle and posterior cranial fossae, topography of cranial nerves. Typical sites of fractures of the base of the skull during trauma (anatomical basis, clinical manifestations). Liqueur fistulas.

8. Lateral area of the face, division into areas. Parotid-masticatory (borders, external landmarks, layers, fascia and cellular spaces, vessels and nerves).

9. Topography of the parotid salivary gland (weak spots of the capsule) and its excretory duct (projection on the skin and in the vestibule of the oral cavity).

10. Topography of the facial nerve (course, branches, depth, projection onto the skin), rationale for surgical approaches on the face.

11. Buccal region (borders, external landmarks, layers, fascia and cellular spaces, vessels and nerves). Course of the facial artery and vein. Topography of the buccal fat pad (Bishat) and its significance in the spread of the inflammatory process on the face.

12. Venous outflow in the face, connection with the veins, sinuses of the dura mater and neck, significance in inflammatory processes.

13. Deep lateral area of the face (borders, external landmarks, layers, fascia and cellular spaces of the deep area of the face, vessels and nerves). Topography of the maxillary artery, sections, branches.

14. Topography of the trigeminal nerve, branches, zones of innervation. Projection of the branches of the trigeminal nerve onto the skin.

15. Craniotomy (definition), types. Resection and osteoplastic craniotomy according to Wagner-Wolff and Olivekron. Plastic surgery of skull defects.

16. Features of primary surgical treatment of head wounds, the concept of penetrating and non-penetrating wounds.

17. Topographic anatomy of the frontal, parietal and occipital regions.

18. Primary surgical treatment of cranial wounds. Classification and features of extracranial hematomas of the cerebral part of the head.

19. Blood supply to the brain section of the head: blood vessels of the subcutaneous base, spongy substance of the bones of the cranial vault. Typical localizations of intracranial hematomas.

20. Topographic anatomy of the sinuses of the dura mater. The significance of the connections of the superficial veins of the cerebral and facial parts of the head with the sinuses of the dura mater.

21. Methods to stop bleeding from the sinuses of the dura mater

22. Topographic anatomy of the temporal region and mastoid process.

23. Ligation of the middle artery of the dura mater.

24. Decompression (according to Cushing) craniotomy.

25. Osteoplastic (according to Olivekron) craniotomy.

26. Blood supply to the brain: carotid and vertebral-basilar basins, extra- and intracranial sections of the cerebral arteries, venous outflow pathways.

27. Methods for restoring blood supply to the brain in case of occlusion of the brachiocephalic trunk, carotid and vertebral arteries.

28. Endovascular surgery of cerebral artery aneurysms.

29. Basic concepts of minimally invasive interventions on the brain.

30. Liquor. Circulation of cerebrospinal fluid. Concept of hydrocephalus.

31. Puncture of the anterior and posterior horns of the lateral ventricles of the brain. Ideas about liquor drainage operations.

32. Topographic anatomy of the parotid-masticatory region: layered structure, parotid gland, “weak spots” of the capsule, relationship with the facial nerve, blood vessels.

33. Topographic anatomy of the deep region of the face.

34. Topographic anatomy of the buccal region.

35. Requirements for incisions on the face. Incisions for purulent mumps.

36. Topographic anatomy of the anterior neck region.

37. Ligation of the external carotid artery.

38. Topographic anatomy of the cervical vagus nerve and sympathetic trunk. Cervical vagosympathetic blockade according to A.V. Vishnevsky.

39. Topographic anatomy of the thyroid gland. Parathyroid glands.

40. Subtotal subfascial resection of the thyroid gland according to O.V. Nikolaev.

41. Topographic anatomy of the larynx and cervical trachea.

42. Tracheostomy.

43. Topographic anatomy of the pharynx and cervical esophagus.

44. Esophagotomy, suture of the esophagus.

45. Topographic anatomy of the anterior neck region.

46. Neck area. Boundaries and external landmarks. Dividing the neck into triangles. Fascia of the neck according to Shevkunenko, cellular spaces, connection with the tissue of the head, chest and upper limb, significance in inflammatory processes. Incisions for phlegmon of the neck.

47. Submandibular triangle (borders, external landmarks, layers, fascia and cellular spaces of the deep region of the face, vessels and nerves).

48. Bed and capsule of the submandibular salivary gland. Neurovascular formations and lymph nodes. Pirogov's triangle.

49. Sternocleidomastoid region (borders, external landmarks, layers, fascia and cellular spaces of the deep region of the face, vessels and nerves).

50. Topography of the main neurovascular bundle of the neck (course, depth, relative position of neurovascular elements, projection onto the skin of the carotid artery). Operative access to the carotid artery.

51. Neck area. Carotid triangle (borders, external landmarks, layers, fascia, vessels and nerves). Topography of the carotid artery (course, depth, relationship with neighboring neurovascular formations). Sino-carotid reflexogenic zone. Branches of the external carotid artery.

52. Topography of the hypoglossal nerve and its superior branch, superior laryngeal nerve, sympathetic trunk, its nodes and cardiac nerves. Divisions of the internal carotid artery.

53. Sublingual area of the neck. Boundaries. Fascia and cellular spaces. Pretracheal muscles.

54. Topographic anatomy of the thyroid and parathyroid glands. Course of the inferior thyroid artery and inferior laryngeal nerve.

55. Topographic anatomy of the trachea on the neck.

56. Topographic anatomy of the larynx on the neck.

57. Topographic anatomy of the pharynx and esophagus on the neck.

58. Deep intermuscular spaces of the neck. Scalen-vertebral triangle (boundaries, contents).

59. Topography of the subclavian artery and its branches (divisions, course, depth, relative position, projection onto the skin of the artery, surgical access).

60. Course of the vertebral artery, sections.

61. Prescalene space of the neck (borders, contents). Topography of the subclavian vein (course, depth, relative position of neurovascular elements, projection onto the skin of the vein), Pirogov's venous angle.

62. Puncture catheterization of the subclavian vein, anatomical basis, puncture points (Aubanyac, Ioffe, Wilson), Seldinger puncture catheterization technique. Possible complications.

63. Interscalene space of the neck (borders, contents).

64. Topography of the subclavian artery and its branches, brachial plexus.

65. Topography of the outer triangle of the neck (borders, external landmarks, layers, fascia and cellular spaces, vessels and nerves).

66. Scapuloclavicular triangle. Neurovascular bundle of the outer triangle.

67. Scapular-trapezoid triangle. Neurovascular formations. Projection onto the skin of the subclavian artery, surgical access to the artery according to Petrovsky.

68. Topography of the sympathetic trunk in the neck (course, depth, relationship with neighboring neurovascular formations).

69. Vagosympathetic blockade according to A.V. Vishnevsky (topographic and anatomical justification, indications, technique, complications).

70. Tracheostomy operation (definition), types. Indications. Instrumentation, execution technique. Possible complications.

Thoracic wall and chest cavity.

1. Puncture and catheterization of the subclavian vein. Operative approaches to the subclavian artery.

2. Topographic anatomy of the thoracic (lymphatic) duct. The danger of injury to the thoracic duct during the Principles of surgical interventions.

3. Concepts about external drainage of the thoracic (lymphatic) duct. Lymphosorbion.

4. Fascia and tissue spaces of the neck. Localization of abscesses and phlegmons.

5. Ways of spread of purulent leaks with phlegmon of the neck. Principles of surgical interventions for abscesses and phlegmon of the neck.

6. Topographic anatomy of the chest wall: projection of the organs of the chest and abdominal cavities, layer-by-layer structure, neurovascular bundles, cellular spaces.

7. Primary surgical treatment of a penetrating chest wound. Classification of pneumothorax. Suturing an open pneumothorax

8. Topographic anatomy of the mammary gland. Pathways for lymph outflow. Regional lymph nodes of the mammary gland.

9. Principles of surgical interventions for purulent mastitis. Sectoral resection of the mammary gland. Principles of surgical interventions for breast cancer.

10. Topographic anatomy of the diaphragm. Anatomical relationships of the diaphragm with the inferior vena cava, esophagus, aorta, thoracic lymphatic duct, nerves.

11. Topographic anatomy of the pleura. Pleural cavity. Interpleural spaces. Pleural puncture.

12. Topographic anatomy of the lungs, structural and functional structure, relationship with the pleura, root of the lung.

13. Removal of a segment, lobe of the lung. Pneumonectomy.

14. Mediastinum. Borders and sections of the mediastinum. Organs, blood vessels, nerves, lymph nodes and tissue-fascial formations. Displacement of mediastinal organs during pathological processes.

15. Operative approaches to the organs of the thoracic cavity.

16. Topographic anatomy of the heart. The structure of heart valves.

17. Topographic anatomy of the pericardium.

18. Topographic anatomy of the heart: blood supply, innervation and conduction system of the heart.

19. Pericardial puncture.

20. Topographic anatomy of the thoracic esophagus.

21. Esophagectomy, esophagoplasty.

22. Topography of the mammary gland, structure, ligaments, blood supply, innervation, lymphatic vessels and regional lymph nodes.

23. Topography of intercostal spaces and internal mammary artery. Intercostal neurovascular bundle (course, depth, relative position of elements, significance during puncture of the pleural cavity). Internal pectoral fascia. Intercostal novocaine blockade (indications, technique).

24. Diaphragm, sections, legs of the diaphragm, lumbocostal triangle, openings and slits. The relationship of the diaphragm to the organs of the thoracic and abdominal cavity. Innervation, blood supply, venous and lymphatic drainage. The concept of diaphragmatic hernia.

25. Pleura, parts of the parietal pleura. Projection of the boundaries of the pleura onto the chest wall. Sinuses of the pleura.

26. Features of vascularization and innervation of the parietal and visceral pleura, morpho-functional features of the pleura.

27. Topography of the lungs. Surfaces, boundaries. Structural organization (lobes, zones and segments), skeletotopy of grooves. Gate, root of the lung and pulmonary ligament. Syntopy of neurovascular formations and bronchi of the right and left roots of the lung.

28. Anterior and middle mediastinum (borders, organs). Projection of large vessels and parts of the heart onto the chest wall.

29. Topography of large vessels, their relationship to the pericardium and adjacent formations.

30. Course of the phrenic nerve. Arterial duct.

31. Topography of the pericardium (divisions, sinuses, relationships with neighboring organs and tissues, blood supply, innervation). Pericardial puncture points, indications.

32. Topography of the heart. Surfaces, departments, intraorgan topography of the heart (valves), skeletotopy of borders, projection of departments and orifices onto the chest wall. Blood supply and venous outflow from the heart.

33. Posterior mediastinum (borders, organs). Topography of the thoracic aorta (relationship with the esophagus). Topography of the azygos and semi-gypsy veins, and the borderline sympathetic trunk, splanchnic nerves.

34. Topography of the esophagus (course, sections, relationships with neighboring organs, vessels and nerves).

35. Topography of the thoracic lymphatic duct in the mediastinum and neck, surgical access.

36. Principles of surgical interventions for purulent mastitis and retromammary phlegmon (operative access, surgical technique).

37. Puncture of the pleural cavity (indications, surgical access, surgical technique).

38. Principles of surgical interventions for drainage of the pleural cavity (indications, surgical access, surgical technique, show how to make a Bulau valve).

39. Pericardial puncture (indications, surgical access, surgical procedure).

40. Principles of surgical interventions on the lung (indications, surgical approaches, types of lung resections, terminology: pneumonectomy, lobectomy, segmentectomy).

41. Principles of surgical interventions for coronary circulation disorders (types, surgical approaches, surgical techniques, CABG, stenting).

42. Operative approaches to the thoracic esophagus (transpleural, extrapleural).

43. Topographic anatomy of the chest wall, pleura and lungs.

44. Operative surgery of the chest wall, pleura and lungs.

45. Sectoral resection of the mammary gland. Mastectomy.

46. Puncture and drainage of the pleural cavity. Thoracotomy.

47. Pneumonectomy. Lobectomy.

48. Atypical lung resection. Suturing a lung wound.

49. Chest and chest cavity. External landmarks. Layers of the chest.

50. Mammary gland. Topography of intercostal spaces. Topography of a. thoracica interna.

51. Topographic anatomy of the diaphragm. Thoracic cavity.

52. Mediastinum and its organs. Mediastinal tissue, purulent mediastinitis.

53. General overview of the topography of the anterior mediastinum.

54. Thymus gland. Pericardium and heart. Vessels and nerves of the anterior mediastinum. Trachea and bronchi.

55. General overview of the topography of the organs of the posterior mediastinum. Descending aorta. Sympathetic trunk. Esophagus. Vagus nerves. Thoracic duct.

56. Principles of surgical interventions on the chest and organs of the thoracic cavity.

57. Principles of surgical interventions on the chest wall and pleura.

58. Principles of surgical interventions for breast diseases. Incisions for purulent mastitis.

71. Puncture of the pleural cavity. Intercostal drainage of the pleural cavity according to Bulau.

72. Primary surgical treatment of chest wall wounds. with open pneumothorax. Principles of surgical interventions for valve pneumothorax.

73. Suturing lung wounds. Radical principles of surgical interventions on the lungs.

74. Operative access to the lung. Removal of the lung - pneumonectomy. Removal of a lobe of the lung - lobectomy.

75. Resection of a lung segment (segmentectomy). Isolated ligation of the upper lobe bronchi.

76. Mitral commissurotomy. Ligation of the patent ductus arteriosus.

77. Topographic anatomy and operative surgery of the mediastinum. Pericardial puncture. Suturing heart wounds.

78. Principles of surgical interventions for heart defects.

79. The concept of endovascular surgery.

80. Access to the esophagus.

81. Drainage of the mediastinum.

82. Topographic anatomy of the subclavian artery. Departments. Branches. Areas of blood supply. Anastomoses.

83. Topographic anatomy of the axillary artery. Departments. Branches. Areas of blood supply. Anastomoses.

84. Age-related features of the organization of blood circulation (heart, Arterial duct)