Colloquium 1 - Theoretical issues

General issues of topographic anatomy and operative surgery

1. The subject and objectives of operative surgery and topographic (clinical) anatomy, the place of the discipline in the system of higher medical education.
2. Russian surgical school.
3. Basic concepts of topographic anatomy: region and its boundaries, projection of anatomical formations onto the surface, holotopy, skeletopy, syntopy of organs, fascial sheaths, neurovascular formations, cellular fatty tissue spaces, collateral circulation.
4. The doctrine of individual variability of human organs and systems.
5. Modern methods for studying topographic anatomy in a clinical setting and on a human corpse.
6. Operative surgery and its tasks.
7. Classifications of surgical operations.
8. Surgical instruments, and their classification, modern diagnostic and medical equipment.
9. Characteristics of suture material.
10. Methods of local anesthesia.
11. General principles of primary surgical treatment of wounds.
12. Concepts about simultaneous, microsurgical, endoscopic, endovascular, cosmetic and aesthetic operations.
13. Features of operations in children.
14. General principles of operations on blood vessels, brain, bones and joints.
15. The subject of operative surgery and clinical anatomy, history, goals, objectives and methods of study.
16. Surgical method of treatment.
17. Surgery, classification, stages of surgical treatment. Surgical instruments.
18. Techniques for tissue connecting and disconnecting, fixation and exposure, hemostasis.
19. Surgical nodes. Types of sutures.
20. Types of skin grafting. Free skin grafting (with a full-thickness flap, a split flap), skin grafting on a feeding pedicle (plasty with local tissues, Indian plastic surgery, Italian plastic surgery, Filatov's method).
21. Modern advances and prospects for the development of surgery - organ and tissue transplantation, minimally invasive surgery, endosurgery.
22. Russian surgical school.

Topographic anatomy and operative surgery of the limbs

1. Clinical anatomy of the upper and lower limbs.
2. Areas of the upper limb. Topographic anatomy of the deltoid region and axilla.
3. Topographic anatomy of the shoulder, ulnar fossa and elbow joint.
4. Topographic anatomy of the forearm, hand, fingers, hand joints.

5. Topographic anatomy of the lower limb region. Gluteal, femoral areas, popliteal fossa, hip and knee joints.
6. Fascial sheaths of the limbs.
7. Laws of N.I. Pirogov. Pirogov sections of limb segments.
8. General characteristics of the limb areas in adults and children.
9. Borders, areas, external landmarks: bony protrusions, grooves, pits, folds of skin, projection of organs and neurovascular formations onto the surface of the skin.
10. Features of topographic-anatomical layers - skin, subcutaneous tissue, superficial fascia, proper fascia, muscles, intermuscular fatty tissue spaces, bones and large joints, neurovascular formations.
11. Furrows, fatty tissue spaces, channels, their connections.
12. Clinical and anatomical basis for the pus spread directions in the extremities
13. Projection lines of blood vessels and nerves.
14. Surgical anatomy of bones and joints.
15. Weak spots in the joint capsule.
16. Neurovascular bundles: composition, sources of their formation and syntopy of elements, branches, anastomoses.
17. Zones of sensitive and motor innervation.
18. Collateral blood supply of the upper and lower extremities.
19. Superficial and deep venous system.
20. Characteristic displacement of fragments in bone fractures of the upper limb.
21. Characteristic displacement of fragments in bone fractures of the lower limb.
22. Features of the structure and fractures of tubular bones in children.
18. Principles and techniques of primary wound surgical treatment in the extremities.
19. Operations for soft tissue purulent diseases.
20. Incisions for the hand phlegmons and panaritium.
21. The Principles of the upper and lower limb phlegmon opening.
22. The General principles of peripheral vascular surgery.
23. The Venipuncture and venesection.
24. The Catheterization of the great vessels.
25. The Ligation of blood vessels in the wound and in the distance.
26. Vascular suture - features, requirements for vascular sutures, methods of applying vascular sutures. Hand stitch, mechanical stitch. Circular suturing. Side suturing.
27. The concept of microsurgical technique in vascular surgery.
28. Operations on nerves and tendons.
29. Nerve trunk and plexus blockade, nerve suture,
30. The concept of neurotomy, neurolysis, neuroectomy and plastic surgery on the nerves.
31. Suture of tendons according to Lange, Cuneo, Kazakov.
32. Operations on joints.

33. Puncture of the shoulder joint.
34. Puncture of the elbow joint.
35. Puncture of the wrist joint.
36. Puncture of the hip and knee joints.
37. Puncture of the ankle joint.
38. Operations on bones.
39. Concepts about osteotomy, bone resection, surgery for osteomyelitis of the tubular bones of the extremities.
40. Skeletal traction, osteosynthesis: extramedullary, intramedullary and extrafocal.
41. Amputation of limbs. General principles.
42. Types of amputations depending on the order of execution, the nature of the flaps, the composition of tissues that forms the flaps.
43. The main stages of amputation, the principles of the amputation stump forming. Vicious stump.
44. Amputations and exarticulations of limbs, classification, indications, instruments, stages and technique.
45. Features of hip amputations using the two-flap method.
46. Bone operations - types of osteosynthesis.
47. Truncation of fingers.
48. The concept of diabetic foot syndrome and clinical and anatomical aspects of its treatment
49. Puncture of joints, arthrotomy (shoulder, elbow, wrist, hip, knee joint - parapatellar, paracondylar, according to V.F. Voino-Yasenetsky; ankle joint), resection of joints (knee joint according to Textor, P.G. Kornev), arthroscopy.
50. Clinical and anatomical rationale for vascular operations.
51. The doctrine of collateral circulation. History of angiosurgery. Providing modern angiosurgical operations.
52. Access to the main arteries. Arterial puncture.
53. Operations for trauma of the main arteries, the use of tourniquets, internal and external shunts.
54. Surgical treatment for arterial embolism - direct and indirect (according to Fogarty, R.R. Vreden) embolectomy.
55. Surgical interventions for atherosclerosis - etiotropic, pathogenetic (radical and palliative), symptomatic.
56. Vein operations - venipuncture, venesection.
57. Endovascular surgery - intravascular embolization, stenting.
58. Nerve operations - exposure, neurolysis, neuroraffia.