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DEPARTMENT OF THE GENERAL AND OPERATIONAL SURGERY
WITH TOPOGRAPHICAL ANATOMY AND COURSE OF STOMATOLOGY

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**GUIDELINES FOR INDEPENDENT WORK OF STUDENTS FOR THE
DISCIPLINE " Topographic_anatomy_and_operative_surgery" FOR
SPECIALTY 05.31.01 "MEDICAL BUSINESS "**

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Guidelines are prepared in accordance with the work program of the discipline "Topographic_anatomy_and_operative_surgery", according to the current curriculum. The structure includes guidelines for each topic studied according to the plan of classroom practical work. The guidelines are intended for independent training of students of the faculty of medicine studying in the specialty 31.05.01-Medical science.

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The course aims and objectives

Purpose - Anatomico-surgical preparation of students, necessary for subsequent studies in clinical departments, primarily surgical, and in independent medical activities; formation of students' knowledge of systems taking into account the individual variability of organs, vessels, nerves; the formation in students of the skills to apply the obtained topographic and anatomical knowledge to substantiate the diagnosis, explain the features of the course of pathological processes, solve diagnostic and surgical problems; mastering students elementary operational actions and some typical surgical techniques, forming professional competencies.

Tasks:

- formation of students' knowledge of topographic anatomy of regions, organs and systems, paying special attention to clinically important anatomical and functional features;
- formation of students' ability to apply the obtained topografo-anatomical knowledge to substantiate the diagnosis, explain the features of the course of pathological processes, solve diagnostic and surgical problems.
- Student mastery of elementary operative actions and some typical surgical techniques.
- formation of professional competences.

TOPICS practical and seminars

Lesson # 1. Methods of studying topographic anatomy. General surgical technique.

questions:

1. Classification of surgical instruments, its application. General surgical instruments.
2. Basic principles of disconnection and connectivity of tissues.
3. Types of surgical nodes, suture material, methods of suturing.
4. The main methods of temporary and final stop bleeding in the wound.
5. Principles of PCW of wounds of soft tissues.
6. Indications for the use of primary, primary-delayed and secondary sutures.

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES

The concept of simultaneous, microsurgical, endoscopic, endovascular, cosmetic and aesthetic surgery.

General principles of transplantation of organs and tissues.

Lesson # 2. Topographical anatomy of the areas of the forearm.

questions:

1. Deltoid area, boundaries, layered topography.
2. Sub- deltoid cellular space and its connection with other regions.
3. Topography of the vessels and nerves surrounding the surgical neck of the humerus.
4. Scapular region, musculoskeletal landmarks, bone-fibrous lodges and their contents
5. Major vascular-neural bundles of the scapular region.
6. Scapular anastomatic circle and its role in the development of collateral circulation in the ligation of the axillary artery.
7. Ways of spread of inflammation from the scapular region.
8. Ligaments, muscles surrounding the shoulder joint. Why in the shoulder joint are possible "habitual" dislocations.
9. Projection of the joint space, the border of attachment of the capsule of the joint, its weak points.
10. Sub-clavicular region: borders, external landmarks, layered structure.
11. Superficial and deep subpectorale cell spaces
12. Axillary region: external landmarks, borders, layered structure.
13. Topography of the axillary artery and its relationship with the branches of the brachial plexus along triangles.
14. The nature of the structure of cellulose and the features of the flow of phlegmons of the axillary basin. Five groups of lymph nodes.

Lesson # 3. Topography of shoulder and elbow joint area, forearm areas.

questions:

1. External reference points and boundaries of the shoulder and elbow area.
2. Topography of lateral cuts of the shoulder at the level of the upper, middle and lower third.
3. The main neurovascular bundle of the anterior region of the shoulder.

4. Vascular bundle of the posterior region of the shoulder.
5. Internal reference points for access to the radial nerve in the middle third of the shoulder.
6. External landmarks and boundaries of the elbow area.
7. Vascular bundles of the ulnar region.
8. Elbow joint and weak points of its capsule.
9. Levels of ligation of the brachial artery on the shoulder and in the ulnar fossa.
10. External landmarks, boundaries, division of the forearm area.
11. Front fascial bed of the forearm, layers. neurovascular bundles.
12. Topography of vascular-neural formations in the upper, middle and lower thirds of the forearm.
13. Cellular space of Pirogov-Paron and its connection with the spaces of the hand and the ulnar region.
14. Posterior and lateral fascial forearm beds, layers, vascular-neural bundles.

Lesson # 4. Topographic anatomy of the dorsum and palmar surfaces of the hand, wrist joint. Operations for purulent-inflammatory diseases of the upper limb. Blockades. Tendon seam.

questions:

1. The area of the wrist and hand, external landmarks, borders.
2. The palm surface of the hand, innervation of the skin of the hand and fingers, features of the structure of the skin and subcutaneous tissue.
4. Wrist canal, radial and ulnar canals of the wrist.
5. Aponeurosis and fascial folds of the palm, cell spaces of the palm.
6. Synovial and osteo-fibrous sheath of tendons of finger flexures, their structure and significance in the spread of inflammatory processes on the hand.
7. Wrist joint, projection of the joint space, articular capsule, its weak points, blood supply and innervation.
8. The back surface of the hand, the zones of cutaneous innervation, the layers.
9. Bone-fibrous canals, vascular-neural formations of the dorsal surface of the hand.
10. Projections of articular slits of metacarpophalangeal, interphalangeal joints, their ligamentous apparatus.
11. Incisions with purulent inflammation of the hand, fingers (draw a diagram).
13. Blockade by Oberst-Lukashevich and Brown-Usoltseva.
14. Opening of inflammatory processes of free upper limb.
15. Technique of imposing a tendon suture.

Lesson # 5. Topography of the gluteal region and thigh, hip joint.

questions:

1. External landmarks, borders of the gluteal region.
2. Layers, fascia, cell spaces, vascular neural formations of the gluteal region.
3. Connection of the cellular spaces of the gluteal region with the spaces of the pelvis and hip.
4. Posterior region of the thigh, layers, fascial bed.
5. Position of fragments with fracture of the femur at various levels.
6. Incisions with phlegmon gluteal region and hamstring.
7. External reference points, the front of the hip.
8. Topography of muscular and vascular lacunae.
9. Femoral canal, walls, inner and outer ring, contents.
10. Femur triangle, layers, iliac crest.
11. Topography of vascular-neural formations in the Scarpien triangle
12. Blocking vascular-neuromuscular bundle, blockage channel, blocking hernias.
13. Lead (canter) channel, walls, holes.
14. Hip joint, projection of joint space.
15. The joint capsule and the apparatus strengthening it, the weak points of the joint capsule,
blood supply and innervation.
16. Position of the femoral head with dislocations.
17. Position of fragments at femoral neck fractures.

Lesson # 6. Topography of the knee, popliteal, shin, ankle and foot regions.

questions:

1. The area of the knee, external landmarks, boundaries.
2. Anterior region of the knee, layers, vascular-neural formations, synovial bags.
3. Posterior region of the knee (popliteal fossa).
4. Level of dressing of the popliteal artery.
5. Knee joint that strengthens the apparatus.
6. Capsule of the joint, its weak points. Synovial twists and their role in the spread of purulent swelling in arthritis.
7. Shin area, external landmarks, borders, division.
8. Anterior and lateral fascial folds of the lower leg, layers
9. Topography of vascular-neural formations in the upper, middle and lower thirds of the lower shin
10. Fascial bed of the posterior region of the tibia, muscle layers.

11. The popliteal canal, the contents.
12. The connection of the pharyngeal space with the cells of the popliteal fossa and foot.
13. The Pirogov Canal.
14. The position of fragments in fractures of the lower leg bones at different levels.
15. External reference points, borders of ankle joint area.
16. Topography of tendons, synovial sheath and a neurovascular bundle area of the medial malleolus, ankle canal
17. The area of the lateral malleolus, layers, the topography of tendons and vascular formations.
18. Bone fibrosis channels, layers, topography of tendons and vascular formations.
19. Back area (Achilles tendon region), layers, synovial bags, vessels and nerves. 20. Capsule and strengthening apparatus of the ankle joint, blood supply, innervation.
21. Topography of the dorsal region of the foot.
22. Projection of the transverse tarsal joint (Chopar) and the tarsal joint (Lisfranc), the zone of cutaneous innervation.
23. Area of the sole, layers, fascial beds.
24. Topography of vascular-neural bundles. Cellular spaces.

Lesson # 7. Operations on the bones and joints of the limbs.

questions:

1. Technique of puncture of the shoulder, elbow, wrist joints.
 2. Technique of puncture of the hip, knee, ankle joints.
 3. Technique of opening the shoulder, elbow, wrist joints.
 4. The technique of opening the hip, knee, ankle joints.
 5. Resection of the shoulder, elbow, wrist joints.
 6. Resection of the hip, knee, ankle joint.
 7. Operations on the bones of extremities in fractures and osteomyelitis.
 8. Surgery for injuries to tendons.
 9. Arthroplasty of the shoulder, elbow, hip, knee joints.

Lesson # 8. Amputation and exarticulation of the extremities.

questions:

1. Definition of amputation and exarticulation: absolute, relative indications. Types of amputations and timing.
2. Stages of amputation and their characteristics. Intersection of soft tissues. Treatment of bone and periosteum. Toilet wound.

3. Methods of covering the amputation stump (fascio, myo-, bone-plastic).
4. Anesthesia. Indication and technique of applying a tourniquet. Special tools for amputation and its use.
5. Amputation and exarticulation on the hand.
6. Amputation of the forearm and exarticulation in the wrist joint. Operation Krukenberg-Albrecht.
7. Amputation of the shoulder.
8. Amputation and exarticulation on the foot.
9. Amputation of the leg: osteoplastic by N. I. Pirogov and throughout.
10. Hip amputation: osteoplastic and throughout.
11. Exarticulation in the hip joint.
12. The vicious stump and the reasons for its formation. Reamputation.

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES amputations equipment at different levels. The possibility of prosthetics

Lesson # 9. Operations on the vessels and nerves of the upper and lower limbs. Projection anatomy of the NVB of the extremities

questions:

1. General principles of vascular surgery. Special tools.
2. Vascular ligation. Technique and levels of superposition of ligatures on the main vessels of the extremities. Tools.
3. Performing access to expose the major NVB during the course of the final stop of bleeding
4. Requirements and technique of superposition of the vascular suture according to Carrel and Morozova.
5. General principles of mechanical seam of vessels. Vascular plastic surgery.
6. Projection lines and incisions for exposing and dressing the subclavian artery and axillary artery according to Petrovsky and Janelidze.
9. Operative access to the subclavian, axillary, brachial, radial, ulnar arteries. Interaction with the adjacent nerve, the projection of NVB. Forbidden Zone Canavella.
10. Projections of the external iliac, femoral, popliteal, posterior and anterior tibial arteries.
11. Operative access to the external iliac, femoral, popliteal, posterior and anterior tibial arteries. Interrelation with the adjacent nerve, the projection of NVB.
12. Operations on the vessels of the extremities. Vascular suture. Vessel dressing in the wound and throughout.
13. Operations for varicose veins of the lower limb.
14. Operations on the nerves of the extremities. Seam of nerve.
15. Venipuncture. Venues of Venesection.

Lesson #10. Technique for performing practical skills in the sections "Finiteness". PST of wound. Exposure of the NVB of the extremities. Incisions in purulent diseases of the lower limb. The final lesson.

questions:

1. The location of the incisions at the opening of phlegmon in the region of free upper and lower limbs.
2. The technique of performing venesection and venepuncture.
3. Stop bleeding in the wound and during the damage to the main vascular bundle of the extremities. Vascular suture
4. Principles and techniques of nerve seam.
5. Principles and techniques of the circular and lateral seam of the vascular wall.
6. Technique of injections (intra-dermal, subcutaneous, intramuscular, intravenous).
7. Technique of performing joint puncture.
8. Locations of performing joint dissection.
9. Technique of performing PST of wounds of the extremities.

Lesson # 11. Topographic anatomy of the brain part of the head. Operations on the cranial vault. PST of wound.

questions:

1. Borders, external reference points of the cerebral part of the head.
2. Topography of the frontal-parietal-occipital region.
3. Topographic anatomy of the temporal region.
4. Topographic anatomy of the mastoid region.
5. Features of blood supply to soft tissues of the cranial vault.
6. Topography of the main nerve trunks of the brain region of the head.
7. Topography of the inner surface of the skull base.
8. Shells of the brain, near-shell spaces, venous sinuses.
9. The Kranelein-Bryusova scheme, its practical significance
10. Localization of hematomas, taking into account the layered topography of the cerebral part of the head.
11. Connections of extracranial and intracranial veins and their practical importance.
12. Toolkit used for operations on the skull.
13. Primary surgical treatment of wounds of the brain region of the head.
14. Features of processing of scalp wounds.
15. Techniques of bone-plastic and decompressive trepanation of the skull.
16. The triangle of Shipo. Antrumotomy. Complications

Lesson # 12. Topography of the facial part of the skull. Operations on the facial part of the skull. PST of wound

questions:

1. Borders, external reference points of the facial part of the head.
2. Topographic anatomy of the anterior region of the face, the chin area.
3. Topographic anatomy of the lateral area of the face: buccal, parotid-chewing.
4. Deep area of the face, cell spaces.
5. Topography of the facial and trigeminal nerves Projections of branches on the face.
6. Features of venous outflow of the face.
7. Requirements and techniques for primary surgical treatment of facial wounds.
8. Incisions with phlegmon of the face.
9. Topographical and anatomical prerequisites for the unfavorable course of inflammatory processes in the region of the parotid salivary gland. Opening phlegmon

Lesson # 13. Topographic anatomy and operative surgery of the neck area.

questions:

1. Topographical anatomy of the neck, division into regions, triangles of the neck.
2. Nadal region of the neck. Topography of the chin, submandibular, sleeping triangles.
3. Topography of the main neck NVB. Levels of common carotid artery division. Distinguishing signs of the internal and external carotid arteries in the wound.
4. The sub-lingual region of the neck. Outflow of lymph.
5. Topography of the neck: larynx, trachea, pharynx, esophagus, thyroid and parathyroid glands (skeleotopia, holotopia, blood supply, innervation, lymphatic drainage).
6. The sternocleidomastoid region, the main NVB of the area.
7. The ladder-vertebral triangle. Neck of chest lymphatic duct. The subclavian artery and its branches.
8. Lateral triangle of the neck: topography of the scapular-trapezius and scapula-clavicular triangles.
9. Topography of the thoracic lymph duct in the neck.
10. Cellular spaces of the neck and their connection with neighboring regions

Lesson # 14. PST of wound neck. Neck neck outcrop. Operations on the organs of the neck.

questions:

1. Operative access to the organs of the neck and the main neck NVB .

2. Vagosympathetic blockade according to Vishnevsky: indications, technique, signs of performance
3. Blockade of the stellate node of the sympathetic trunk.
4. An anesthesia of the brachial plexus according to Kulenkampfu.
5. Exposure and alcoholization of the diaphragmatic nerve.
6. Exposure of the artery on the neck (carotid, subclavian).
7. Tracheotomy and tracheostomy. Indications, tools, techniques of implementation.
8. Conduction of tracheal intubation, instrumentation.
9. The technique of inserting the cannula into the trachea (2 options).
Complications of tracheostomy.
10. Access to the cervical esophagus. Surgery in the cervical esophagus.
11. Access to the thyroid gland according to Kocher. Subtotal and subfascial resection of the thyroid gland according to Nikolaev.
12. Opening of abscesses and phlegmon of neck. Opening and draining of closed and non-closed spaces of the neck.

Lesson # 15. Surgical anatomy of the chest wall, breast, pleura, lungs.

questions:

1. Chest boundaries, division into regions, vertical orientation lines, constitutional features of form.
2. Layered topography of the chest.
3. Topography of the breast, lymphatic drainage.
4. Subpectoral cellular spaces.
5. Structure of intercostal spaces, their contents. Comparative characteristics of intercostal spaces.
6. Topography of the diaphragm, weak points.
7. Topography of the pleura; sinuses, their practical significance.
8. Topography of the lungs: lobes, segments, zones.
9. Types of mastitis. Incisions in mastitis.
10. Technique of sectoral resection of the breast.
11. Basic principles of radical mastectomy.

Lesson # 16. Surgical anatomy of the mediastinum.

questions:

1. The concept of "mediastinum" and its division.
2. Topography of the anterior mediastinum.
3. Topography of the pericardium: skeleton, sintopia, holotopia, sinuses, their practical significance.

4. Topography of the heart: skeleton and sintopia, holotopia. Blood supply and innervation.
5. Topography of large blood vessels of the anterior mediastinum: pulmonary trunk, ascending part and arch of the aorta, upper and lower hollow veins.
6. Topography of the trachea and its bifurcations.
7. Topography of the posterior mediastinum.
8. Topography of the esophagus and vagus nerves.
9. Topography of the descending part of the aorta, sympathetic trunk, thoracic lymphatic duct, unpaired and semi-unpaired veins.
10. The technique of puncture of the pericardium (safety triangle).
11. Operative access to the heart.
12. Operative access to the thoracic esophagus.

Lesson # 17. Operations on the thoracic cavity and mediastinum.

questions:

1. Puncture of the rib-diaphragmatic sinus. Tools
2. Chest injuries: penetrating, non-penetrating.
3. Types of pneumothorax. Fighting pneumothorax. Sewing pneumothorax.
4. Valve pneumothorax, "balloting" of the mediastinum, pleuropulmonary shock.
5. Operative access to the lungs.
6. Lateral thoracotomy. Tools for subperiosteal resection of the rib. Technique of execution.
7. Technique of suturing the wound of the lung. Features of the implementation of seams.
8. Surgical treatment of lung abscess.
9. Pneumonectomy: indications, technique of performance.
 10. Lobectomy, segmentectomy: indications, technique.
 11. Acquired heart defects, the principles of their surgical treatment.
 12. The technique of suturing the wound of the heart.
 13. Surgical treatment of uninfected botulinum duct.
 14. Puncture of the pleural cavity (with hydrothorax and pneumothorax). Indication, technique.
15. Technique of sternum puncture for bone marrow extraction. Tools.

Lesson # 18. The topography of the anterolateral abdominal wall. Weak spots.

Form of activity - practical session.

questions:

1. Border, external benchmarks, the projection of organs and neurovascular structures in the front wall.
2. Individual and age differences shapes the abdomen.
3. abdomen: the front side wall, abdomen, lumbar region and retroperitoneal space.
4. Topographic anatomy of the vagina rectus muscles, the lateral abdominal wall. Topographic and anatomical conditions of education linea alba hernias, umbilical, inguinal.

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES

Topographic anatomy of the anterolateral wall of the abdomen and its weaknesses.

Determination of content and weaknesses border of the anterior abdominal wall. Suturing of tissue during plastic modeling weaknesses.

The topography of the lumbar region and retroperitoneal space. Technique of surgical interventions on the organs of the retroperitoneal space

The topography of the gate kidneys. Extraperitoneal and transperitoneal accesses to the kidneys and ureters, their comparative characteristic (laparotomic by Fedorov, Pirogov, Bergman, Israel).

Lesson # 19.Surgical anatomy of the inguinal, umbilical and femoral hernias. Hernia repair and plastic.

Form of activity - practical session.

questions:

1. Surgical anatomy of abdominal hernias: umbilical, oblique and direct inguinal, moving, birth.
2. Postoperative hernia.
3. The surgical tools and instruments.
4. Operation on the anterior abdominal wall hernias: inguinal, femoral, umbilical, the umbilical cord, the white line of the abdomen.
5. abdominal puncture (paracentesis)

6. Laparoskopiya, transumbilikalnaya portogepatografiya, splenoportography.
7. Laparotomiya, species and their comparative evaluation. Laparoscopic surgery.

Lesson # 20. Topographical anatomy of the upper abdomen.

Form of activity - practical session.

questions:

1. Structure and function of the peritoneum, floors, bags, sinus canals pockets.
 2. Clinical anatomy of the abdominal esophagus, stomach, duodenum
 3. Clinical anatomy of the liver, gall bladder and of extrahepatic bile ducts,
 4. Clinical anatomy of the spleen and pancreas.
 5. Features arterial blood supply to organs and the venous outflow.
- Innervation of the organ, the regional lymph nodes.

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES

Topographical anatomy of the upper abdominal organs. peritoneum and the course of education of the peritoneum in the upper floor

Blood supply, lymph drainage, innervation of the abdominal cavity. Possible ways of spreading the infection. Technique audit upper abdomen.

Gastric surgery: gastrotomy, suturing perforated gastric ulcer, gastroenterostomy (vperediodochnoy) retrocolic. Gastrectomy Billroth-I. Operations on the liver: sutures parenchymatous organ. cholecystectomy Splenectomy

The operations on the abdominal organs.

The puncture of the abdominal cavity. Intestinal suture technique. Appendectomy. Bowel resection superimposed intestinal anastomoses. Overlay unnatural anus.

The operations on the abdominal organs

Gastrotomy, suturing of perforated gastric ulcer, gastrotomy, gastrojejunostomy. Gastrectomy. Suturing wounds small intestine and colon. Bowel resection with anastomosis "end to end", "side to side", "end to side". Suture liver, splenectomy, cholecystectomy. Suturing parenchymal organ injury. Suture liver. Splenectomy

Lesson # 21. Topographic anatomy of the organs of the lower floor of the abdominal cavity. General principles of imposition of intestinal sutures. Technique perform basic operations on the small and large intestine.

Form of activity - practical session.

questions :

1. The topography of the small and large intestine.
2. 2.Hod peritoneum in the lower floor, the connection formations peritoneum in the abdomen.
3. Revision of the abdominal cavity in penetrating wounds.
4. Theoretical bases and methods of superimposing intestinal sutures.
5. Resection of the small and large intestines.
6. Technique anastomosis "end to end", "side to side", "end to side" with and without opening.
7. Appendectomy,
8. Removing Mekkeleva diverticulum.
9. Fecal fistula, unnatural anus.
10. Operations at megacolon and Hirschsprung's disease

Shape holding -SAMOSTOYATELNAYA WORK

ISSUES

Topographic anatomy of the lower floor of the abdominal cavity. The course of the peritoneum and the formation of the peritoneum in the lower floor. Revision abdominal cavity for bleeding and damage the wall of the penis. Types of intestinal sutures and anastomoses of hollow organs.

Intestinal seams: Lambert, Albert Schmid, black, Pirogov-Bireh, Mateshuka, Kirpatovsky. Formation of anastomoses "side to side", "end to side", "end to end". colon mobilization. Resection of the small intestine. Appendectomy. Technique abdominal audit Possible ways of infection

Technique perform operations on the upper abdomen organs: stomach, duodenum. Anastomoses, gut sutures

Lesson # 22. Operations on organs upper abdomen

Form of activity - practical session.

questions:

1. Closure of perforated gastric ulcer, gastrotomy.
2. Gastrostomy for strain-Kader, Witzel, Toproveru.
3. Formation of the front and rear gastroanastomozov.
4. Gastrectomy Billroth I and modification.
5. Gastrectomy Billroth II and modifications. biliodigestive derivations gastroplasty

Lesson # 23. The operations on the abdominal organs.

Form of activity - practical session.

questions:

1. of the liver and biliary tract operation.
2. Blockade of the round ligament liver.
3. Suture liver injury, anatomical and atypical liver resection; the concept of surgical treatment of liver abscesses; portal hypertension.
4. Cholecystectomy, cholecystostomy forming anastomoses biliodigestive
5. The concept of a liver transplant.
6. Operations in the spleen. The seam of the spleen, splenectomy, spleen autotransplantation in traumatic injuries.

Operations in the pancreas. Accesses to the pancreas. The concept of operations in acute and chronic pancreatitis, cysts and abscesses.

Lesson # 24. The topography of the lumbar region and retroperitoneal space.

Technique of surgical interventions in the retroperitoneal space. Form of activity - practical session.

questions:

1. Projection organs and large vessels retroperitoneum to the skin of the abdominal wall and the anterior lumbar region.
2. Medial and lateral sections, layers and their characterization, blood vessels, nerves. Weaknesses, cellular spaces.
3. Regional lymph nodes.
4. Clinical anatomy of the kidneys, adrenal glands and ureters.
5. Topographic anatomy of the abdominal aorta, inferior vena cava, a steam room and hemiazygos veins.
6. Formation of the thoracic duct.

7. Surgical instruments and equipment.
8. Perirenal blockade on Vishnevsky.
9. Seam kidney, partial nephrectomy, nephropexy, pielotomiya, nephrectomy.
10. The concept of renal transplantation.
11. Suture ureter, plastic surgery for defects ureters.

Autopsy of inflammatory foci lumbar region and retroperitoneum.

Lesson # 25. The operations on the abdominal organs and retroperitoneum.

Form of activity - practical session.

questions:

1. Individual, Gender and age features of the structure of the pelvis and pelvic wall.
2nd floor of a small basin. The course of the peritoneum in the male and female pelvis.
3. The fascia and cellular tissue of the pelvis area
4. Urinary and anal triangles: layers and their characteristics, neurovascular structures and cellular spaces.
5. External genitals of men.
6. The external genital organs of women.
7. The crotch portion of the rectum, especially arterial blood supply and venous drainage
8. Regional lymph nodes.

Lesson # 26. Topographic anatomy of the pelvis and perineum. Pelvic surgery and perineum.

Form of activity - practical session.

questions:

1. Surgical instruments and equipment.
2. Novokainovaya blockade of the spermatic cord and the round ligament of the uterus.

3. pudendal nerve blockade, blockade of intrapelvic Shkolnikov-Selivanov-Tsodyksu.
4. Operations in the bladder: Puncture bladder cystotomy, cystostomy, suturing the wound bladder.
5. Pnyatiye a plastic bladder.
6. Operatsii on the prostate gland about the adenoma and prostate cancer.
7. culdocentesis, vaginotomy.
8. Operation when broken ectopic pregnancy.
9. surgery for hemorrhoids, rectal prolapse.
10. Operatsii at undescended testis; hydrocele and spermatic cord, with phimosis and paraofimoze.
11. Pnyatiye on transactions with male and female infertility.
12. Upward and downward drainage of the parietal pelvic abscesses

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ISSUES

Topographic anatomy and operative surgery of the pelvis and perineum.

Operations on the internal genital organs of women and men. Colostomy in the colon.

Drainage of cavity walls and pelvis cellular spaces

Lesson # 27. Operative surgery and topographic anatomy of the spine.

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ISSUES

Departments, external benchmarks.

The spine and the spinal canal.

Individual and age differences of the spine and spinal cord.

Spinal cord membranes, nerve roots. Skeletopy spinal segments.

Blood supply, venous drainage.

Anatomical and physiological study of surgical interventions.

Surgical instruments and equipment. A lumbar puncture.

Laminectomy. Surgical methods for spinal fixation in fractures.

Reconstructive and stabilizing spinal surgery.

Operations at anomalies of the spine, spinal hernia.

Educational-methodical and informational support of practice

1. Subject and methods for the study of topographic anatomy. Basic concepts of topographic anatomy: the region and its borders; external and internal benchmarks; projection of neurovascular structures and bodies; fascia cellular spaces.
2. The role of domestic scientists in the development of topographic anatomy and operative surgery: Pirogov, P.I.Dyakonov, N.I.Napalkov, V.N.Shevkunenko, A.N.Maksimov, V.V.Kovanov C .I.Spasokukotsky, Vishnevsky, N.I.Burdenko.
3. General principles of transplantation of organs and tissues.
4. Topography fronto-parietal-occipital region. Features of the blood supply to the covers of the cranial vault. Technique primary surgical treatment of wounds of the cranial vault.
5. Topography sinuses of the dura mater. The veins of the cranial vault and persons, their connection with intracranial veins and venous sinuses of the dura mater. The value in the spread of purulent infection.
6. Topography of the temporal region. Scheme craniocerebral topography. The projection of the middle meningeal artery. And osteoplastic decompressive craniotomy.
7. Topography mastoid region. Trepanation of the mastoid process. Possible complications.

8. Topography of parotid-masticatory area. The spread of purulent zatokov with mumps. Operations in acute purulent parotitis.
 9. Topography buccal area. Features of venous outflow area of the face - venous anastomoses, their importance in the spread of purulent infection.
 10. Topography of surface formations side face area. Features of venous outflow area of the face - venous anastomoses, their importance in the spread of purulent infection. Direction surgical incisions on the face.
 11. The topography of the deep areas of the face. Fascia and cellular spaces. The spread of purulent zatokov face. Intervention in purulent processes in the face.
 12. Area of sternocleidomastoid muscle. Topography of the cervical plexus. Vagosympathetic blockade on Vishnevsky.
 13. Topography suprahyoid area. Submental and submandibular triangles. Submandibular gland. Autopsy submandibular cellulitis.
 14. Topography of the submental and submandibular triangle. autopsy submandibular cellulitis.
 15. Topography sleepy triangle of the neck. Reflex neck area. An autopsy phlegmon vaginal fascial primary neurovascular bundle.
 16. Topography sternoclavicular-mastoid region. Vagosympathetic blockade on Vishnevsky.
 17. The fascia and cellular tissue of the neck area. Autopsy submandibular cellulitis.
 18. Fascia and neck kletchatochnyh space. Autopsy retropharyngeal cellulitis.
- Classification of the fascia of the neck by Shevkunenko. Closed or open space of the neck ..
19. The fascia and cellular tissue of the neck area. Autopsy phlegmon fascial sheath main neurovascular bundle.
 20. Topography of the larynx and cervical trachea. The upper and lower tracheostomy. Konikotomiya.

21. Topography of the pharynx and cervical esophagus. Autopsy pozadipischevodnoy cellulitis. Online access to the cervical esophagus.
22. Topography of the lateral triangle of the neck. Predlestnichnaya and interscalene gap. On-line access to the organs of the neck.
23. Topography staircase-vertebral triangle. Quick access to the common carotid artery in the scapular-tracheal and sleepy triangles.
24. The Topography thoracic duct and neck lymph nodes. Access to the common carotid artery in the sleepy triangle.
25. Topography of thoracic duct and lymph nodes in the neck. Autopsy previstseralnoy cellulitis neck.
26. Topography of the thyroid and parathyroid glands. Subtotal subcapsular strumectomy of Nikolaev.
27. Tracheostomy and its species. Possible complications arising from incorrect operation is performed.
28. The topography of the breast. Lymph path. Operations in purulent mastitis.
29. The topography of the breast. Lymph path. Sectoral resection and radical mastectomy.
30. Topography intercostal spaces. Primary surgical treatment of penetrating wounds of the chest wall. ribs subperiosteal resection
31. Topography of the diaphragm. Weaknesses of the diaphragm. Topographic-anatomic substantiation of education diaphragmatic hernias.
32. Topography of the pleura and lung. Segmental structure of the lungs. Online access to the organs of the chest cavity. Puncture and thoracostomy.
33. Topography of the pleura and lung. Segmental structure of the lungs. Puncture and thoracostomy.
34. The topography of the mediastinum. Vessels, nerves and nerve plexus posterior mediastinum. Surgical approaches to the anterior and posterior mediastinum.
35. Topography vessels, nerves and nerve plexus of the mediastinum. Reflex zones.

36. Topography of the heart and pericardium. Topography of the thoracic aorta. Pericardiocentesis.
37. Topography of thoracic trachea, bifurcation of the trachea and main bronchi. The lymph nodes of the chest cavity. Online access to the organs of the chest cavity.
38. Topography of the thoracic esophagus and vagus nerves. Line access to the thoracic esophagus.
39. Topography thoracic duct lymph nodes of the thoracic cavity. Puncture and drainage of the pleural cavity.
40. Fascia cellular spaces and mediastinum. The spread of purulent zatokov. Surgical approaches to the posterior mediastinum organs.
41. The topography of the anterolateral abdominal wall. Surgical approaches to the organs of the abdominal cavity.
42. Topography of the anterolateral abdominal wall. Topographic-anatomic substantiation of formation of umbilical hernia. Operations when umbilical hernias.
43. Topography of the inguinal canal. Topographic-anatomic substantiation of the emergence of acquired oblique inguinal hernia. Plastic inguinal canal of Girard-Spasokukotsky the weld Kimbarovskogo modification.
44. Topography of the inguinal canal. Topographic-anatomic substantiation of occurrence of direct inguinal hernia. Sliding hernia. Plastic inguinal canal by Bassini.
45. The topography of the inguinal canal. Topographic-anatomic substantiation of formation of congenital inguinal hernia. Features of treatment of hernia sac in congenital inguinal hernia.
46. The topography of the femoral canal, femoral hernia. Femoral and inguinal methods operations in femoral hernias.
47. The peritoneal cavity. Division by floors. Subdiaphragmatic space. Predzheludochnaya and stuffing bags. On-line access to the cavity omental.
48. The peritoneal cavity. Division by floors. The topography of the pancreas. Quick access to the pancreas.
49. Topography of the liver, its segmental structure. Hepatoduodenal bunch. Methods for stopping bleeding in liver damage. Liver suturing wounds.

50. The topography of the gallbladder, biliary tract and hepatoduodenal ligament. Quick access to the gallbladder. Operations: cholecystendysis, cholecystectomy, choledochotomy.

51. Topography of the abdominal portion of the esophagus and stomach. Closure of perforated gastric ulcer.

52. Topography of the abdominal portion of the esophagus and stomach. Types gastrojejunostomy.

A vicious circle and the reasons for its formation.

53. Topography of the abdominal portion of the esophagus and stomach. Gastrectomy Billroth-I, Billroth-II to modify the Hofmeister-Finsterer.

54. Topography of duodenum and the duodenal-jejunal flexure. processing methods duodenal stump with gastrectomy.

55. Topography of the spleen. Splenectomy.

56. Topography of the packing bags. Gland hole. On-line access to the cavity omental.

57. Topography of the packing bags. The topography of the pancreas. Quick access to the pancreas.

58. Topography of the small intestine. Rule Gubarev. small intestine revision method.

59. Topography of the small intestine. Mesenteric sinuses (sinus). Revision of the abdominal cavity. resection technique of the small intestine and the imposition of intestinal anastomosis means the "end-to-end" and "side-to-side."

60. Topography of the cecum and the appendix. Surgical approaches and appendectomy technique.

61. Topography of the colon. Colostomy. Operation overlay unnatural anus by the method Maidla.

62. Topography of the small and large intestines. Technique audit abdominal cavity for bleeding and damage the hollow body. Intestinal seams, general requirements for the imposition of intestinal sutures. Closure of penetrating wounds of the small intestine.

63. Topography of kidneys, the fixing apparatus kidneys. Decapsulation. Nephropexy.
64. Topography of the lumbar region. Weak spots. Fascia and cellular tissue formation retroperitoneal space. Perirenal blockade, possible complications.
65. Topography of kidneys, ureters and adrenal glands. Surgical approaches to the kidneys and ureters.
66. Topography of the abdominal aorta and inferior vena cava. Nerve plexus, lymph nodes, retroperitoneal space. Surgical approaches to the kidneys and ureters.
67. Progress in the peritoneum male and female pelvis. Drainage vesico-rectal and utero-rectal recesses.
68. Topography of female pelvic peritoneal department. Drainage of the utero-rectal cavity. The puncture of the abdominal cavity through the posterior vaginal fornix.
69. Topography of female pelvic peritoneal department. The topography of the uterus with appendages. Surgery for an ectopic pregnancy.
70. Topography of the bladder. Predpuzyrnoe retrovesical and cellular spaces. Puncture of the bladder.
71. The topography of the bladder, urethra, prostate, vas deferens. Operations in wounds of the bladder. Methods drainage predpuzyrnogo cellular spaces.
72. fascial-cellular spaces of a small basin. The spread of purulent zatokov. Blockade of the lumbar and sacral plexus of Shkolnikov-Selivanov.
73. Topography of the rectum. Pozadipryamokishechnoe cellular spaces. The spread of purulent zatokov. Surgery for injuries of the rectum.
74. Topography scapular region. Arterial anastomoses and development of collateral circulation in the axillary artery occlusion.
75. Topography of the subclavian area. Subclavian and axillary lymph nodes. Opening and drainage subpektoralnoy cellulitis.
76. Topography and the deltoid region of the shoulder joint. Puncture of the shoulder joint.
77. Topography of the shoulder joint. Puncture and arthrotomy of the shoulder joint.

78. The topography of the axilla. Online access to the neurovascular bundle. Exposure of the axillary artery.
79. The topography of the anterior-medial shoulder area. Amputation of the shoulder to the middle third of the level.
80. The topography of the back shoulder region. The doctrine of the amputation. Classification of amputations Term: primary, secondary and repeat (reamputatsiya). Amputation of the shoulder in the middle third.
81. Topography of the rear area of the elbow. The elbow joint. Puncture and arthrotomy of elbow joint.
82. The topography of the anterior region of the forearm. Exposure of the radial artery in the lower third of the forearm. Fascial-cellular spaces Pirogov. The spread of purulent infection.
83. The topography of the anterior region of the forearm. Online access to the ulnar neurovascular bundle.
84. Topography of the median bed of palm. Autopsy subgaleal cellulitis median lodge palm on the war-Yasenetsky.
85. Topography of the median bed of palm. Operations during intraosseous and subungual panaritiums.
86. Topography of the median bed of palm. Operations in purulent tenosynovitis II, III and IV fingers.
87. Topography lateral bed palm. Operations in purulent tenosynovitis I finger.
88. Topography of the gluteal region. The spread of purulent zatokov podfastsialnogo cellular spaces of the gluteal region. Autopsy podfastsialnoy cellulitis gluteal region.
89. The topography of the femoral triangle. Exposure of the femoral artery and femoral vein below the inguinal ligament.
90. Topography of blood vessels and nerves of the femoral triangle. Exposure of the femoral artery in the femoral triangle.

91. Topography of the obturator canal. The spread of purulent zatokov fastsialno-kletchatochnyh formations. Drainage cellular spaces of the pelvic Buyalsky-McWhorter.
92. Topography of the medial thigh bed. Leading channel. The seam of the vessel Karrelyu-Morozova.
93. The topography of the sciatic nerve in the gluteal region and the rear region of the thigh. Exposure of the sciatic nerve in the gluteal region.
94. Topography of the knee joint. Osteoplastic amputation Gritti-Shimanovsky. Principles of formation of the supporting stump.
95. Topography of the popliteal fossa. The development of collateral circulation in the popliteal artery occlusion. The seam of the vessel by Carrel-Morozova.
96. Topography of the popliteal fossa. The development of collateral circulation in the popliteal artery occlusion. Cone-circular amputation Pirogov.
97. The topography of the front region of the tibia.
98. Classification of limb amputations in the form of soft tissue dissection. Fastsioplasticheskaya amputation of the lower leg.
99. The rear region of the tibia topography. Goleno-popliteal channel. Osteoplastic amputation of the lower leg of Pirogov.
100. Topography of the front area of the ankle and rear foot. Exposure of dorsal artery of foot.
101. Field of the medial malleolus. The medial malleolar channel. Purulent zatokov propagation path of the medial malleolar channel.
102. Topography of the area of the sole. Heel and plantar channels. Autopsy subgaleal cellulitis soles on the war-Yasenetsky.

TRAINING methodical and information Maintenance

a) List of recommended literature

Main literature

Nikolaev A.V., Topographic Anatomy and Operative Surgery : textbook / Nikolaev A.V. - М. : ГЭОТАР-Медиа, 2019. - 672 с. - ISBN 978-5-9704-5300-1 - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <http://www.studentlibrary.ru/book/ISBN9785970453001.html>

Additional literature

Topographic Anatomy and Operative Surgery [Электронный ресурс] / Nikolaev A.V. - М. : ГЭОТАР-Медиа, 2018. Режим доступа: <http://www.studentlibrary.ru/book/ISBN9785970445495.html>

Educational literature

1. Astakhov O. B. Veins and venous anastomoses of the trunk, and it's clinical value : for students of the Faculty of Medicine in the following specialties: 31.05.01 - General Medicine : In English / O. B. Astakhov, A. O. Plugatyreva ; Ulyanovsk State University, Insitute of Medicine, Ecology and Physical culture. - Ulyanovsk : ULSU, 2018. - 39 p.

2. A.V. Smolkina, S.V. Makarov, V.P. Demin, S.I. Barbashin. Sharp purulent diseases of skin and hypodermic fatty cellulose / Study Guide (e-course). - Ulyanovsk, USU, 2019. - 23 p.

3. Smolkina A.V., Makarov S.V., Ostrovsky V.K., Midlenko I.I. Wounds, bleedings. Desmurgiya – science about bandages: electronic teaching method. allowance. // Study Guide (e-course)..- Ulyanovsk, USU, 2018. - 32
<https://www.ulsu.ru/media/documents/>

4. Smolkina A.V., Gnoevikh Vitaly V. INSTRUCTIONS FOR ORGANIZATION OF INDEPENDENT WORK FOR THE DISCIPLINE Topographic_anatomy_and_operative_surgery-[Электронный ресурс].- Ulyanovsk, 2019. <https://www.ulsu.ru/media/documents/>

5. Smolkina A. V., Gnoevikh Vitaly V. METHODOLOGICAL GUIDELINES FOR PRACTICAL EXERCISE ON THE DISCIPLINE Topographic_anatomy_and_operative_surgery -[Электронный ресурс].- Ulyanovsk, 2019. <https://www.ulsu.ru/media/documents/>

b) software:

title agreement

ATP Consultant Plus Contract No.

NEB RF

EBS IPRBooks

AIBS "MegaPro"

System "Anti-plagiarism. University"

Microsoft Windows

Microsoft Office 2016

MyOffice Standard

Automated information system "Vitacor RMIS"

StatisticaBasicAcademicforWindows 13

c) databases, reference and search systems:

1. Electronic library systems:

1.1. IPRbooks: electronic library system: website / group of companies AI PI Ar Media. - Saratov, [2020]. - URL: <http://www.iprbookshop.ru> – - access Mode: for registered users. users'. - Text: electronic.

1.2. YURAYT: electronic library system: website / LLC Electronic publishing house YURAYT. - Moscow, [2020]. - URL: <https://www.biblio-online.ru> – - access Mode: for registered users. users'. - Text: electronic.

1.3. student Consultant: electronic library system: website / Politehresurs LTD. - Moscow, [2020]. - URL: http://www.studentlibrary.ru/catalogue/switch_kit/x2019-128.html. - Access mode: for registered users. users'. - Text: electronic.

1.4. LAN: electronic library system: website / EBS LAN LLC. - Saint Petersburg, [2020]. - URL: <http://www.studentlibrary.ru/pages/catalogue.html> <https://e.lanbook.com> – - access Mode: for registered users. users'. - Text: electronic.

- 1.5. Znanium.com : e-library system : website / OOO Synium. - Moscow, [2020]. - URL: <http://www.studentlibrary.ru/pages/catalogue.html> <http://znanium.com> - - access Mode: for registered users. users'. - Text: electronic.
- 1.6. Clinical Collection: collection for medical universities, clinics, medical libraries / / EBSCOhost : [portal]. - URL: <http://web.a.ebscohost.com/ehost/search/advanced?vid=1&sid=e3ddfb99-a1a7-46dd-a6eb-2185f3e0876a%40sessionmgr4008>. - access Mode: for authorization. users'. - Text: electronic.
2. ConsultantPlus [Electronic resource]: reference legal system. / Consultant Plus LLC-Electron. Dan. - Moscow: ConsultantPlus, [2020].
3. databases of periodicals:
- 3.1. database of periodicals: electronic journals / LLC IVIS. - Moscow, [2020]. - URL: <https://dlib.eastview.com/browse/udb/12> - - access Mode: for authorization. users'. - Text: electronic.
- 3.2. eLIBRARY.RU: scientific electronic library: website / LLC Scientific Electronic Library. - Moscow, [2020]. - URL: <http://elibrary.ru> - - access Mode: for authorization. users'. - Text: electronic
- 3.3. "Grebennikon": electronic library / Grebennikov ID. - Moscow, [2020]. - URL: <https://id2.action-media.ru/Personal/Products> - - access Mode: for authorization. users'. - Text: electronic.
4. national electronic library: electronic library: Federal state information system: website / Ministry of culture of the Russian Federation; RSE. - Moscow, [2020]. - URL:<http://www.studentlibrary.ru/pages/catalogue.html> <https://нэб.рф> - - access Mode: for users of the scientific library. - Text: electronic.
5. SMART Imagebase / / EBSCOhost: [portal]. - URL: <https://ebsco.smartimagebase.com/?TOKEN=EBSCO-1a2ff8c55aa76d8229047223a7d6dc9c&custid=s6895741> - - access Mode: for authorization. users'. - Image : electronic.
6. Federal information and educational portals:
- 6.1. Single window of access to educational resources: Federal portal / founder of the Federal state educational INSTITUTION DPO CRGOP and it. - URL: <http://window.edu.ru/>. - Text: electronic.
- 6.2. Error! Invalid hyperlink object. Russian education: Federal portal / founder of the Federal state educational INSTITUTION DPO CRGOP and it. - URL: <http://www.edu.ru>. - Text: electronic.
7. Ulsu Educational resources:
- 7.1. Ulsu Electronic library: ABIS Mega-PRO module / date Express LLC. - URL: <http://lib.ulsu.ru/MegaPro/Web> - - access Mode: for users of the scientific library. - Text: electronic.
- 7.2. Ulsu Educational portal. - URL: <http://edu.ulsu.ru> - - access Mode: for registered users. - Text: electronic.

SPECIAL CONDITIONS FOR STUDENTS WITH DISABLED POSSIBILITIES

If necessary, students from among persons with disabilities (at the request of the student) can be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

- for persons with visual impairments: in printed form in an enlarged font; in the form of an electronic document; in the form of audio files (translation of educational materials into audio format), in printed form in Braille; individual consultations with the use of a tiflosurd interpreter; individual assignments and consultations;

- for persons with hearing impairment: in printed form; in the form of an electronic document; videos with subtitles; individual consultations with the involvement of a sign language interpreter; individual assignments and consultations;

- for persons with musculoskeletal disorders: in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations.