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FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION
"NORTH OSSETIAN STATE MEDICAL ACADEMY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

Department of Human Anatomy with Topographic Anatomy and Operative Surgery

EDUCATIONAL SITUATIONAL TASKS

BY DISCIPLINE
«TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY»
the main professional educational program of higher education – the specialty program in the specialty
31.05.01 General medicine

TOPIC:

General surgical technique. Surgical instruments. Connection and separation of tissues.

1. During surgery, the surgeon uses the apodictilous method of surgery. Explain the essence of this method. What are the advantages and disadvantages of the apodictilous method?
2. The basis of the operations for malignant tumors based on aplasticheskoj principle. Explain the essence of this principle. What methods of separation of tissues in a large git mi satisfy the requirements of ablastichnost operations?
3. The surgeon performs the operation under local anesthesia by "tight creeping infiltration". Why at the end of the operation there is a need to control the quality of hemostasis?
4. When performing surgery should be guided by the General rules of use of surgical instruments. Give the name.
5. The surgeon cuts the skin with a scalpel with a subcutaneous base. Why does he only use a scalpel and only an abdominal one? Why is the skin with a subcutaneous base cut in one motion in the direction of the skin tension lines?
6. After cutting the skin with the subcutaneous base, the surgeon and the assistant began hemostasis. Explain how to put the hemostatic clamp on the bleeding vessel?? Какова последовательность перевязки кровоточащего сосуда??
7. The surgeon and the assistant began to dissect their own fascia (aponeurosis). What is the sequence of dissection of this layer?
8. To perform the surgical sutures used cutting (triangular) and pointed (circular) needle. Explain the difference in the formation of the ligature canal with these surgical needles. Specify the purpose of the dihedral landing pad at the cutting needle.
9. The surgeon sutures the operating wound. What principles should form the basis of this stage of the operation?
10. When performing skin nodular sutures should follow the rules to ensure better healing and cosmetic results. What are these rules.
11. The surgeon stitched the wound with skin nodal sutures. In what order do they perform, why? Where are the nodes, for what?
12. On the 7th day after surgery, the surgeon the noda removes l skin sutures. What is the sequence of actions of the surgeon? What complications can occur if you do not comply with the technique of removing the skin seam?

TOPIC:

Topographical anatomy of shoulder girdle: the scapula, the deltoid, the subclavian and axillary regions; shoulder joint; shoulder.

13. In traumatologic point asked M., age 17: at the rink and he fell on the allotted hand. Diagnosis:"fracture of the collarbone." Explain why the examination of the patient is undesirable definition of pathological mobility and crepitations?
14. The victim M., 15 years old, oblique fracture of the clavicle, the line of which passes through the middle of the bone. What components of the neurovascular bundle can be damaged by displacement of the lateral fragment of the clavicle?
15. The patient M., 48 years old, is scheduled for surgery on the axillary artery. Describe three methods for determining the projection line of the axillary artery.
16. The surgeon performs one of the stages of surgery for breast cancer-excise the tissue and lymph nodes of the axillary area. Specify the group of deep lymph nodes in this area and their localization.
17. The surgeon performs operative access to the axillary artery in the thoracic triangle. Specify which components of the neurovascular bundle adjacent to the axillary artery should

be shifted to the medial and lateral sides?
18. Patient P., 21 years old, in the primary surgical treatment of a gunshot wound of the axillary area, the axillary artery in the thoracic triangle (above the scapular artery) was ligated. Explain the possible ways to restore blood supply to the upper limb.
19. Patient S., 62 years old, was admitted to the department of purulent surgery. Diagnosis: "Axillary abscess". Specify the areas in which the spread of purulent leakage is possible.
20. The patient M., 71 years old, a fracture of the surgical neck of the humerus, complicated by a subdeltoid hematoma. Specify the origin of the hematoma.
21. The surgeon makes a counter incision from the back of the shoulder joint. Explain how the "exclusion zone" is defined - the projection of the axillary nerve exit onto the posterior surface of the humerus.
22. During the operation under endotracheal anesthesia, the right shoulder of the patient rested on the edge of the operating table for a long time. In the postoperative period, he had a restriction on the extension of the thumb and index fingers. Explain the cause of this complication.
23. Patient A., 41 years old, a fracture of the diaphysis of the humerus at the level of the middle third. Explain what complication will indicate the absence of skin sensitivity and motor function in the area of innervation of the radial nerve?
24. The surgeon performs non-projection access to the brachial artery in the middle third of the shoulder. Explain which nerve should be shifted to the side when approaching the artery at this level.
25. The patient, 19 years old, was admitted in the emergency ward with complaints of pain, swelling in the area of the middle third of the shoulder, limitation of movement. Locally: there is a hematoma on the shoulder, soft tissue swelling, sharp pain in palpation. What studies are needed to clarify the diagnosis? What vessels and nerves could be damaged by the localization of the fracture at this level? Name the muscles and specify the direction of displacement of the fragments, resulting from their traction.
26. The patient, 15 yearwas admitted to traumatology, of pain in the right shoulder joint, swelling and restriction of movements. On examination: the limb is brought and bent in the elbow joint. In the deltoid area, abrasion and extensive hematoma. What studies are needed to clarify the diagnosis? In what directions do the fragments move? What formations could be damaged by displacement of fragments?

TOPIC:
Topographic anatomy of elbow, elbow, forearm, hand, wrist, wrist, metacarpal and fingers, brushes.

27. Patient K., 72 years old, with the aim of intravenous infusion is supposed to venepuncture in the anterior ulnar region. Explain to me what Vienna is more often a target for percutaneous puncture? Why? What technique should be used to contour the veins of the anterior elbow area?
28. A patient with a deep cut wound of the anterior lateral part of the ulnar fossa was admitted to the surgical Department. The wound, 2 cm long, is located at the level of the elbow bend, laterally from the tendon of the biceps muscle of the shoulder. Indicate which muscles may have been damaged? Which nerve function should be checked for diagnosis?
29. Patient K., 49 years old, was found to have purulent inflammation of the elbow joint. On examination, along with other symptoms, a protrusion was found on the sides of the olecranon. Give a topographic and anatomical rationale for this symptom..
30. The traumatology Department enrolled M., 26 years old, who has a scalped wound of the

anterior region of the forearm. What are the features of the relationship between the surface and its own fascia of this area is explained by a slight detachment over a significant length of the skin flap?
31. Patient M., 48 years old, developed purulent numbness in the space of N. I. Pirogov-Paron. Name the boundaries of this space, and which external landmarks are reference points in the drainage of phlegmon of this space..
32. Patient U., 22 years old, was admitted to the surgical department, with a transverse wound at the level of the proximal transverse fold of the palm, penetrating into a deep sheet of the palmar aponeurosis. Explain which layers and anatomical formation can be dissected? What determines the contractile ability of the proximal and distal ends of these formations?
33. In the patient J., 15, years of phlegmon of the lateral fascial Lodge of the palm, occupying its medial Department. Specify, what is limited by this cellular gap? In which part of the skin fold of the thumb elevation can not continue the incision? Explain why?
34. Patient K., 26 years old, as a complication developed «U» - shaped (cross) phlegmon. Explain the inflammation of which synovial sheaths of the tendons of the flexors of the fingers is complicated by the development of «U» - shaped phlegmon? How often "this complication can be observed?
35. The patient M., 56 years old, subcutaneous panaritium of the Palmar surface of the nail phalanx of the index finger. There was a painful throbbing pain. When opening the panaritium, dry necrosis of subcutaneous tissue was found. What are the features of the structure of subcutaneous tissue due to severe pain and the possibility of its necrosis?
36. Clinical observations show that the large, index and middle fingers of the hand have a more severe course, can be complicated by the appearance of sub-pectoral phlegmon. Specify the features of the ways of lymph outflow from these fingers, explaining the more severe course of acute purulent inflammation.
37. In the surgical hospital has received the teenager of 16 years with a wound of the right hand. On the Palmar surface of the right hand at the level of the middle third of the III, IV metacarpal bones there is a wound with smooth edges, moderately bleeding. Movement in III, IV fingers are limited. What kind of formations can be damaged here? What should be the tactics of the surgeon?
38. Patient, 15 yearsentered In the surgical Departmenof, with a cut wound of the left wrist joint. On examination: on the anterior surface of the forearm, 1 cm above the projection of the styloid process of the radius bone observed wound size 1.0*0.6 cm Movement in the first finger of the left hand is limited. What are the layers in this area that may have been damaged? Tactics of the doctor on duty?

TOPIC:

<u>Topographic anatomy of the gluteal region, hip joint, thigh.</u>

39. Patient K., 70 years old, developed a post-injection abscess in the thickness of the right gluteus maximus muscle. Explain the cause of significant tissue tension and pronounced pain syndrome. What is the prevalence of purulent inflammatory process?
40. In an obese patient T., 68 years old, perform rapid access to the sciatic nerve in the posterior region of the thigh. Is it possible to use skin as the outer guideline: the gluteal fold? Why? How is this fold formed?
41. Explain in which quadrant of the gluteal region intramuscular injections are made? Why? Describe the methods for determining the quadrant of the region in which injections are performed?
42. Patient J., 48 years old, was admitted to the surgical department about a deep incised

wound of the gluteal region, accompanied by severe bleeding. What are the features of the blood supply of this area cause difficulties of hemostasis in the wound? What operation should be carried out at unsuccessful attempt to stop the bleeding in the wound?
43. One of the symptoms indicating damage to the hip joint and a hip fracture is the displacement of the tip of the greater trochanter from the Roser-Nelaton line. How is this line determined? For which types of hip injuries does it have a practical meaning??
44. Patient T., 18 years old, coxitis. In which parts of the hip joint capsule are there "weak" places?
45. Patient K., 42 years old, is scheduled to have a puncture and catheterization of the femoral artery according to Seldinger's method for performing celiacography. Describe the projection of the femoral artery in relation to the inguinal ligament. On which side of the artery is the femoral vein located?
46. Patient T., 48 years old, addressed the surgeon. Diagnosis: "Right-sided femoral hernia." From the anamnesis, pathogenetic factors of the hernia are revealed: increased intra-abdominal pressure, degenerative changes in the layers of the abdominal wall and pelvis (cough due to bronchiectasis, three genera). Name the anatomical background of femoral hernia. Name the walls of the femoral canal
47. Patient R., 54 years old, is scheduled for a reconstructive femoral vein surgery. Explain the anatomical relationships of the femoral vessels in the femoral triangle and the middle third of the thigh to justify quick access to the femoral vein.
48. Patient S., 56 years old, suffering from hypertension, makes intramuscular injections of a solution of magnesium sulfate in the upper lateral quadrant of the berry area. As a complication, post-injection abscess of the gluteal region occurred. Specify the spread of pus?
49. Patient C., 31 years old, spondylitis of tuberculous etiology (tuberculosis of the lumbar vertebra) complicated by abscess, which has spread before small spits femur. Indicate which lacuna and fascial sheath which muscle tuberculosis sore could spread to the anterior thigh.
50. In a patient with a fracture of the femur at the level of the middle third, hematoma builds up in the posterior muscle-fascial bed. Explain which blood vessels were damaged, what internal reference points the surgeon should use to access these blood vessels in order to permanently stop the bleeding.

TOPIC:
Topographic anatomy of the knee, knee-joint, lower leg, ankle, foot..

51. Patient K., 23 years old, was admitted to the casualty department, with a gunshot wound of the anterior region of the right thigh 5 cm up from the patella. The surgeon suggested, and after additional examination (X-ray examination, puncture of the joint) found that this wound penetrates into the cavity of the knee joint. Explain what was the basis for such a diagnosis?
52. A patient has an accumulation of pus in the knee joint. Opening and drainage of the anterior part of the joint cavity carried out by parapatellar incisions. In order to drain the posterior part of the joint cavity, an additional incision is made along the medial edge of the popliteal fossa. To do this, through the medial parapatellar incision, forceps are held in the posterior direction. The end of it near the tendon of the semitendinaceous muscle forms a protrusion of the soft tissues and an incision is made above it. Explain why it is not recommended to do arthrotomy along the lateral edge of the popliteal fossa.
53. Patient 3., 57 years old, developed popliteal artery occlusion above the discharge of the upper arteries of the knee from it. What collaterals can help restore the blood supply to the lower leg??
54. Patient N., 17 years old, hit the angle of the chair with the lateral part of the lower leg at

the level of the base of the fibula head; she felt such a sharp pain that for a moment she lost consciousness and could not continue to take a single step. Explain which bruise of the nerve is observed in the patient.
55. The patient is scheduled femoral-posterior to the tibia shunting. In which canal of the posterior region of the leg is the posterior tibial artery? Name the muscles that make up the walls of this channel. What is the syntopia of the elements of the neurovascular bundle and the projection of the posterior tibial artery?
56. Clinical observations show that fractures of the bones of the legs are often open. What features of the relationship between soft tissues and bones of the lower leg can explain the cause of open fractures?
57. When phlegmon of the middle fascial bed of the sole of the patient, pus has accumulated in the deep space of the posterior region of the leg. Explain the distribution path.
58. Patient C., 19 years old, 4 days ago, with his right foot, stepped on a nail. The phlegmon of an average fascial bed of a sole developed. Explain the possible ways of dissemination of purulent effusions.
59. The patient came to the emergency room about a cut skin wound of the sole: on the river bank, he stepped on a fragment of bottle glass with his left foot. The skin wound gapes, bleeds, swelling of hypodermic cellulose is noted. What operative reception is shown before skin wound closure in this situation? Why is the need for this operational reception?

TOPIC:
Operations on vessels, nerves and tendons of the upper and lower extremities.

60. Patient S., 53 years, appointed clickography. Explain, what is this method of research? How to make clickography?
61. The surgeon performs a direct embolectomy of the superior mesenteric artery. Explain how they approach the embolus? What methods produce embolectomy?
62. A 16-year-old patient with a gunshot wound of the right elbow joint was admitted to the surgical Department. On examination: on the medial side there is an inlet with a diameter of 0.2 cm, and on the back surface of the elbow joint there is an outlet with a diameter of 0.5 cm, the wounds moderately bleed. The x-ray shows damage to the medial epicondyle of the humerus. The patient does not feel IV,V fingers of the right hand. What layers could be damaged? What nerve function is affected? What is the tactics of the doctor on duty?
63. Patient P., 17 years old, popliteal artery thromboembolism (complication of mitral valve disease of rheumatic etiology). The surgeon performs an indirect embolectomy. Specify what is the essence of this method, how can I remove a blood clot? What tool is used in this operation?
64. The patient M., 45 years old, due to a gunshot wound has a significant destruction of the artery wall. What methods of ligation of this vessel can be used for the final stop of bleeding?
65. In the surgical Department entered the patient N., 20 years with an ankle wound. During examination noticed the wound on the posterior surface of the ankle joint size 2.0*0.4 cm of Motion in the foot is limited and painful. Which layers are damaged? What should be the tactics of the surgeon on duty?
66. Patient 3., 26 years old, gunshot wound to the armpit. To ensure hemostasis, the surgeon decided to bandage the axillary artery. Specify the sequence of ligation of the ends of the artery: how many ligatures are applied to the Central and peripheral ends of the artery'? How is the reliability control of hemostasis?
67. The patient is 15 years old, he entered the surgical hospital with a wound in the projection of the head of the fibula. The wound is 1.5 * 0.6 cm in size with smooth edges, bleeds

moderately, the feet sag (“horse's foot”). name formations that could be damaged? What is the sequence of actions of the surgeon on duty??
68. The surgeon bandages the Central end of the main artery in a deep, inaccessible wound. Explain the technique that the surgeon and assistant will use to secure the ligature before tying the second node.
69. In the trauma Department received a patient with an accident. When examining the patient in the mind, there is swelling of the middle third of the left thigh, pain, deformation of this area. You are the doctor on duty, what is your tactics?
70. The patient was admitted to traumatology 17 years old, with complaints of pain in the area of edema, hematoma, forearm deformed, movements are sharply limited and painful. Palpation is determined by fastening, the head of the radius is palpated freely. What research is required to clarify the diagnosis? What's the preliminary diagnosis? What nerves can be damaged by fractures of such localization?
71. The surgeon performs a circular vascular suture using the Carrel method. Explain for what purpose the outer shell (adventitia) is pre-excised, freeing 2-3 mm of the artery from it?
72. The patient is 13 years old, went to the surgical Department with complaints of a wound, pain in the right foot. The injury was 3 days ago, cut with glass. When examining the plantar surface of the right foot, there is a wound 2.5*0.8 cm in size, hyperemia of the skin around the wound, pain in palpation. Pain radiates to the back surface of the Shin and the rear of the foot, the wound is covered with a crust, from under which pus seeps, redness and swelling on the back surface of the foot, numbness in the area of the I-th interdigital interval. In what cellular spaces of a sole can develop phlegmons? Ways of distribution of pus in the abscesses of the sole? What branch, what nerve innervates the I-th interdigital space? What should be the breakdown for the opening of abscesses of the sole?
73. When performing a circular vascular suture using the Carrel method, the surgeon connects the ends of the artery with three "P" - shaped sutures-holders. For what purpose are used the suture-holders?
74. In phlebology, along with operations on the superficial and deep veins of the lower limb, a ligation of the communicant veins (supra - fascial - by Cocquet and sub-fascial-by Linton) is used. Explain the purpose of these operations.
75. The patient, 35 years old, entered the Department of peripheral nerve surgery with impaired function of the radial nerve due to compression in the scar. 4.5 months ago, he was on treatment for a gunshot wound to the middle third of the shoulder. Specify in which direction with external neurolysis the surgeon will allocate the nerve from the scar, which method determines the conductivity of the nerve?
76. When performing the nodal suture of the nerve, the surgeon met with a complication-the eruption of the suture. Which suture is stronger when approaching the ends of the nerve? What are the disadvantages of this seam?
77. In the patient H., 40 years, after neurolysis and excision of the sciatic nerve ends, a large nerve defect arose. What techniques are used in peripheral nerve surgery to connect the ends?

TOPIC:

Operations FOR purulent inflammatory diseases of the upper and lower extremities.

78. Explain the possible complications of subcutaneous panaritium of the nail phalanx, if during the operation is not completely dissected connective tissue strands between the skin and periosteum and not carried out radical excision of necrotic areas of subcutaneous tissue.
79. During the operation, a fistula in the subcutaneous tissue was found in the skin of the nail phalanx of the thumb after removal of the detached epidermis. When pressing in the area of

fistula appeared pus. What is the surgeon's tactic in this situation?
80. The patient has a subaponeurotic phlegmon of the middle fascial bed of the palm, pronounced swelling of the rear of the hand. What is the structure of the subcutaneous tissue of the rear of the hand and the ways of lymph outflow from the palm of this symptom?
81. The patient has subcutaneous panaritium of the Palmar surface of the middle phalanx of the middle finger. What is the reference point when applying the cut? Explain where the incision is made?
82. The patient has subcutaneous panaritium. The focus of destruction on the Palmar surface of the nail phalanx of the ring finger. What kind of incision will be used by the surgeon?
83. A patient K., 26 years old, addressed to the surgeon at the polyclinic reception. After manicure, she developed inflammation of the periungual roller (paronychia) at one corner of the proximal part of the nail plate. What sections are used in this situation, where it is carried out?
84. At the polyclinic reception, the surgeon has a patient sh., 44 years old, who has paronychia with a lesion of the periungual roller at the base of the nail plate. Explain the technique of the operation.
85. The patient TS, 28 years old, as a result of posttraumatic subungual hematoma, a subungual panaritium with a Central location of the ulcer appeared. Explain the scope of surgery.
86. The patient V., 25 years old, subungual panaritium with localization of purulent focus closer to the free edge of the nail. Explain the scope of surgery.
87. Patient T., 30, subungual panaritium. Most of the nail plate is detached by pus from its bed. Specify the amount of surgery.
88. The surgeon examines the zone of the greatest pain in the tendon of the index finger with the probe. What external guidelines correspond to the distal and proximal boundaries of the zone of greatest pain?
89. In arthrotomy, there is a risk of damage to the articular cartilage. What is the technique to avoid damage to the articular cartilage when dissecting the synovial membrane?

TOPIC:

Operations on the long tubular bones and joints of the upper and lower extremities. Amputation and exarticulation.

90. Anatomical and physiological features of the long tubular bone, large periods of bone wound healing and the possibility of displacement of bone fragments (due to muscle cravings) determine the features of surgical interventions on this organ. Name them.
91. In the surgical treatment of fractures of the long tubular bones, it is necessary to provide conditions for the regeneration of bone tissue. Name these conditions.
92. In the treatment of closed fractures of the long tubular bones, skeletal traction is used, which providing good reposition and fixation of bone fragments. In what cases is shown skeletal traction? What ways it is carried out?
93. In surgical practice is used subperiosteal and cross-periosteal bone resection. Explain the main differences between these operations.
94. Patient K., 15 years old, apropos ankylosis of the hip joint is performed confirmatory osteotomy of the hip by K. N. Kochev. What technique is used for stable comparison of bone fragments?
95. Patient G., 18 years old, apropos ankylosis of the hip joint is performed confirmatory osteotomy of the hip by A. A. Kozlovsky. What technique is used for stable comparison of bone fragments?

96. Patient A., 22 years old, at the end of the treatment of a shin fracture is observed shortening of the leg by 7 cm. In which way limb lengthening be achieved?
97. Больному В., 18 лет, apropos ankylosis of the knee joint was done supracondylar osteotomy of the hip by Repke. What advantage does this osteotomy have?
98. For the implementation of an open retrograde intramedullary osteosynthesis at a fracture, a traumatologist plans prompt access to the bone. What criteria should he use when choosing operational access?
99. In the traumatological department enrolled B., 15 years old, about the traumatic crush of the right foot. Soft tissues of the heel area are without damage. Radiography of the foot confirmed the integrity of the heel bone. What amputation is shown to this patient? What is its essence? What advantages does it have?
100. To the victim N., 37 years old, performed fascioplasty amputation of the leg on the level of the middle third. Which flap of soft tissue should be longer? What soft tissues are included in the anterior and posterior flap? In what sequence are the sawdust larger and fibula bones covered with these flaps?
101. What are the reasons for the formation of "conical" stump. What is the essence of reamputation?
102. H. 27 лет, apropos of gunshot wound of knee joint was made hip amputation at the border of the middle and lower third by a double snippet skin and facial method. Name the stages of prosthetics.
103. Patient, K., 45 years old, complained of pulsation stump, which complicating denture wearing. Explain the reason for the development of this complication. What technical technique makes it possible to prevent its development?
104. As a result of traffic accident a 4-year-old child needed to amputate the lower limb on the border of the upper and middle third of the shin. Specify the features of amputation of the tibial and fibula bones, features of the processing of periosteum in children.
105. Patient F., 40 years old, was appealed after amputation of the lower limb at the level of the lower third of the thigh about the gas gangrene to the orthopedic center for the selection of prosthesis 1 month after surgery. What type of prosthesis is shown to her to pick up? Is it possible for her to choose a permanent prosthesis in this period??

TOPIC:

Topographic Anatomy and Operative Surgery of the brain region of head.

106. Neurosurgeon prepares the surgical field for the surgical processing of wounds of soft tissues of the parietal region. At first, he processes the operative field with a swab with hartshorn (ether or gasoline). Explain the need for this step..
107. In the surgical department was admitted Z.,12 years old, with a scalped wound of the fronto-parietal-occipital region. Skin aponeurotic flap fixed "leg" 5.5 cm wide, located posterior to the mastoid process. The edges of the flap bleed. Which neurovascular bundle is part of the flap? What features of the blood supply to the fronto-parietal-occipital region can explain the significant blood loss and high regenerative abilities of the tissues?
108. In the emergency room of a multidisciplinary hospital, three victims arrived at which the construction of the canopy at the bus stop collapse. As a result of blunt trauma of the soft tissues of the cranial vault, hematomas appeared in the victims: 1) The victim A., 30years old,have a hematoma witch look like a «cone», 3 * 3cm in size, has clear boundaries. 2) The victim V., 40 years old, hematoma has no clear boundaries and occupies the entire surface of the cranial vault. 3) The victim N., 60 years old, hematoma is located in the left parietal region and coincides with the boundaries of the left parietal bone. Can you, on the basis of the

examination of the victims, suggest what kind of hematomas they have?
109. N., 14 years old, as a complication of blunt trauma of the fronto-parietal region, has arisen a subaponeurotic hematoma. What local features does it have? What is the nature of the prevalence of it differs from the subperiosteal hematoma?
110. Patient K., 13 years old, because of an infected wound in the soft tissues of the mastoid process area was arise thrombosis of the transverse and sigmoid sinuses. Explain the causal relationship of these pathological processes.
111. A patient F.,28 years old, is admitted to the neurosurgical department with penetrating skull wound (hit with a metal object). At the time of admission, there is a chopped wound of soft tissue, fracture of the parietal bone on the left, near the swept seam. Create an algorithm for the examination and treatment of this patient. What methods can be used to stop bleeding from the diploic substance and from the sinuses of the dura mater?
112. Epidural hematomas are most often localized in the temporal, parietal and occipital regions. What is the source of epidural hematoma, what characterizes the dynamics of compression syndrome in “arterial” and “venous capillary” hematomas?
113. At fractures of the cranial vault the area of the detachment of the internal bone("Glass") plate is 2-4 times larger than the size of the fracture of the external plate. What is the reason for this discrepancy between the area of damage to the external and internal bone plastics?
114. A mother with a child approached a pediatrician for an appointment 1.3 months with complaints of deformation of the child’s head. According to the mother, the boy often complains of a headache, in addition, he has a "bulging eyes", child is maudlin, cranky. Survey results: on the roentgenogram of the skull there are no cranial sutures, the bones of the vault are significantly thinned, there are pronounced fingers depressions throughout the vault of the skull. The back of the Turkish saddle thinned. At computed tomography: small sizes of ventricles of a brain, reduction of subarachnoid cobweb. Consultation of the oculist: congestive optic nerve discs. Каков Ваш диагноз? What is the treatment strategy??
115. Patient M., 29 years old, as a complication of cranial fracture in the anterior cranial fossa with the formation of liquor fistula, there were symptoms of "hanky" (a handkerchief moistened with liquor from the nasal passages, after drying, remains soft, saturated with mucus - hard) and "double spot" (in the center of the white napkin is a red spot - this is an admixture of blood in the liquor fluid, on the periphery - light coloured halo of liquor) purulent meningitis developed. Explain the mechanism of occurrence of this complication..
116. A 21-year-old boy enrolled in the neurosurgical department. Delivered from the accident site (motorcycle control). The patient is unconscious, fractures of the humerus and femur bones, significant facial damage are diagnosed. At the CT scan in axial projection, a strip of white is detected on the lateral surface of the left hemisphere, having 5 mm in thickness and 12 cm in length. What is the most likely diagnosis??
117. Patient M., 3 years old, located in the neurosurgical department of the children's hospital diagnosed with occlusive hydrocephalus. From the anamnesis of life: a child from pregnancy II, II childbirth. Childbirth was heavy, in mixed buttocks- foot previa. The baby didn't shouted right away. The Apgar score is 5-7 points. What should be the treatment strategy for this patient? Is conservative therapy acceptable?
118. The victim T., 33 years old, a skull base fracture. Along with other symptoms, there is bleeding and discharge of liquor from the external auditory canal, internal strabismus, paralysis of the facial muscles of the face, hearing loss on the affected side. Justify the topical diagnosis of this type of traumatic brain injury. What complication of intracranial nature may occur in this patient?
119. A 23-year-old woman has MRI of the brain. Sagittal section of MRI passed close to

midline. The visualization of which space confirms that the cut passed along the midline?
120. Patient O., 12 years old, occlusive hydrocephalus with a uniform expansion of the lateral and 3rd ventricles of the brain. At what level can occlusion of the cerebrospinal fluid pathways take place in this patient? What does "hydrocephalic brain edema" mean?
121. In the neurological department delivered a woman at the age of 70 years, with complaints of visual impairment that arose suddenly against the backdrop of increased blood pressure till 180/ millimeters of mercury. Suffering from hypertension for about 20 years. Never been examined, she was not prescribed antihypertensive therapy. Occasionally, when blood pressure rises to high numbers, she calls an ambulance, which eliminate hypertensive crisis. The last deterioration came on the background of stress. A neighbor called an ambulance. When a woman tried to get out of bed abruptly, she complained of a sharp headache, dizziness, blurred vision. What is your diagnosis?
122. Patient K., 36 years old, repeatedly referred to a neurologist with complaints of frequent persistent headaches, dizziness, memory impairment. The examination revealed a pronounced narrowing of the left internal carotid artery. Explain why this patient developed these symptoms?
123. Neurosurgeon in the surgical processing of a cranial cerebral wound of the frontal-temporal region after excision of the soft tissues and the periosteum has begun the treatment of a bone wound. What is the sequence of this phase of the operation? What are the ways to provide bone wound hemostasis?
124. At surgical processing of a craniocerebral wound with a small shard skull fracture over the superior sagittal sinus necessitated sinus ligation. In what cases is this hemostasis method shown for sinus damage? How and what is a solid ligature? What are the consequences of using this method of hemostasis?
125. Neurosurgeon performs surgical processing of craniocerebral wound. What is the indication for autopsy an intact dura? What can be complicated by the unreasonable opening of this shell in traumatic brain injury?
126. Neurosurgeon prepares for craniotomy in the temporal-parietal region due to epidural hematoma. Before limiting the operative field with sterile linen, he with a cotton wool stick moistened with 1% solution of brilliant green,draws a Cronlane scheme. Explain the purpose of this scheme. Explain the meaning of this scheme.
127. Patient O., 51 years old, regarding the increase in intracranial pressure in an inoperable brain tumor, decompressive craniotomy in the right temporal region is performed (by Cushing). Made arcuate (horseshoe) incision of soft tissue. In which direction of the area should the base of the skin aponeurotic flap be turned? Why? What methods of hemostasis are used for this?
128. Before autopsy the tense dura mater with decompressive craniotomy by Cushing To the patient is performed lumbar puncture. Why spinal fluid is removed slowly and in small portions (10-30 ml)?
129. When osteoplastic craniotomy of the skull, it is advisable to connect the cutter holes with an Olivecron wire saw. Why?

TOPIC:

Topographic anatomy and operative surgery of the facial region of the head.

130. Patient I., 13 years old, who "squeezed pimple", developed furuncle upper lip. Along with severe intoxication, a sharp swelling of the face, there is redness and soreness along the facial and angular veins to the medial edge of the palpebral fissure; upon palpation, the veins are dense and roll under the finger. What features of the skin structure determine the

frequency of localization of boils of the nasolabial triangle? What terrible intracranial complication may develop in this patient? Why?

131. Woman A., 43 years old, developed pain in the cheek area and near the mouth. Previously, she noted similar pain, but they independently stopped. Currently the pain has become so severe that the patient cannot even eat, brush her teeth. What is your diagnosis?

132. Seny M., 6 years old, left-sided purulent parotitis. Along with other symptoms, there is difficulty breathing, sharp pain when swallowing, protrusion of the left side wall of the pharynx. What is the complication of purulent parotiditis in this child and the cause of its occurrence?

133. A 30-year-old male patient turned to an ENT doctor complaining of pain when swallowing. From the history of the disease: ill a week ago, he was treated at home for angina. On examination, there is a bright hyperemia of the pharynx, protrusion of the anterior arch. What is your diagnosis and treatment algorithm?

134. Patient K., 48 years old, after suffering otitis media (not treated) had a pharyngeal abscess. With which disease is a differential diagnosis necessary? What is the technique of opening and draining the pharyngeal abscess?

135. During operations in the lateral area of the face, cuts are made in “neutral” zones. Explain what these zones represent? What complications can occur if an incision is made incorrectly?

136. In the surgical department is prepared for the operation of the patient U., 50 years old. Preoperative diagnosis: Parotid abscess of salivary gland. What are the features of the opening of the abscess of the parotid salivary gland?

137. During a street fight, a 17-year-old teenager received a incised wound to the left side of his face, 5 cm long. A teenager was taken by ambulance to the department of maxillofacial surgery. Indicate which periods are optimal for the initial surgical treatment of wounds.? What is the technique of face wound closure?

138. Patient P., 52 years old, trigeminal neuralgia. She is shown a blockade of the branches of the trigeminal nerve. Specify the place of introduction of 70% ethyl alcohol.

139. In a newborn T., congenital facial defects are diagnosed: complete cleft of the upper lip and incomplete cleft of the hard palate. What surgical interventions are shown to this patient? What goals do they pursue and within what time frame?

140. Patient S., 45 years old, was performed right-sided parotidectomy for a mixed tumor. What nerve and its branches should be repaired during the operation? What research method allows to identify (distinguish from cicatricial cords) branches of this nerve? How can hemostasis be performed when performing parotidectomy?

141. Parotid-chewing fascia forms the capsule and the case of the parotid gland. What do “case” glands mean? In which parts of the capsule is more dense and thick, in which it is poorly developed? What is the difference between the relationship of the parotid and submandibular glands with their capsules?

142. Patient P., 13 years old, post-influenza sinusitis maxillitis (sinusitis). What anatomical features of the message of the maxillary sinus with the nasal cavity can be explained by the fact that of all the paranasal sinuses purulent inflammation often develops in the maxillary sinus?

143. When examining patients, a characteristic of the pharynx is given. Explain the concept of "pharynx" and "lymphoepithelial ring." What is the frequency of inflammation of the pharynx?

144. Patient R., 19 years old, as a complication of pulpitis (7th right upper tooth), purulent sinusitis-maxillitis (sinusitis). What features of the anatomical relationship of the roots of the

upper tooth 7 can explain the transition of the inflammatory process in the maxillary sinus?

TOPIC:

Topographic anatomy. Topographic anatomy of the neck organs.

145. Patient 3., 16 years old, was hospitalized in the department of purulent surgery. Due to perforation of the esophagus wall, the patient has a swelling of the neck more on the left side, pain when swallowing, turning the head, body temperature is 39.3 °. Indicate in which fat space of the neck phlegmon has developed? In which area can a purulent drain appear? Where make the incision for opening phlegmon?

146. Patient B., 25 years old, has a formation of an abscess, localized above the sternum jugular notch and above the collarbone as a «collar». Specify, between what fascia abscess is located? What cuts are used to open an abscess??

147. One of the stages of the surgical treatment of cancer of the lower lip is fascial-cular excision of the tissue and lymph nodes of the submandibular triangle (Vanah operation). Explain the need to remove the submandibular gland. What nerve can be damaged during the operation? What blood vessels are ligated and crossed during surgery?

148. Patient I., 32 years old, after subtotal subfascial resection of the thyroid gland celebrated a change in voice (hoarseness) and difficulty in breathing during exercise stress. What caused this symptom? Are there topographic-anatomical prerequisites for the development of this complication?

149. The operation preceding resection of the upper jaw in cancer using the "knife" technique is ligation of the external carotid artery in the carotid triangle. What caused the need for such an operation? Describe the projection line and the place of the incision to expose the external carotid artery. What signs should the surgeon use to distinguish the external carotid artery from the internal?

150. After the lower tracheostomy, the patient developed pain in the area of the surgical wound, skin flushing, soreness, swelling, increased body temperature to 39-40 °. What are the layers of fiber in the neck, in which the purulent process may develop, than they are limited, to which purulent streaks spread??

151. In the emergency room of the surgical hospital by radio from the ambulance car gave information about the arrival of the victim with a wound to the neck in the middle part. What is the duty of a surgeon on duty? What is the surgeon's tactic for wounding the neck in the lower or upper part??

152. At the 18-year-old woman the knot, with a diameter of 1,5 cm in supraclavicular area comes to light. The node is removed. Histological examination reveals normal well-differentiated thyroid tissue inside the lymph node. What should the surgeon think about when receiving such a result of the histological conclusion?

153. Patient S. was admitted to the surgical department, 21 years old with a diagnosis of neck injury. Damage to major vessels of the neck. How can the external carotid artery be distinguished from the internal carotid artery in a wound? What is the tactic for injuring: 1) the common carotid artery, 2) the internal carotid artery, 3) the external carotid artery.

TOPIC:

Operative surgery of neck. Operative surgery of neck organs.

154. Patient V.,15 years old, was admitted to the surgical department. Diagnosis: "Phlegmon of the suprasternal interaponevrotic space". Indicate wherewith this space is limited. Where can a purulent leak come? What education can be damaged when opening this phlegmon by a cut 1 cm up from the jugular notch of the sternum?

155. Liza M., 7 years old, phlegmon of the right submandibular region. At examination: in the lower department of the buccal region there is a festering skin wound - a consequence of an insect bite and a comb. Body temperature - 38.3 °, severe pain and swelling in the submandibular region. Explain the connection between these inflammatory processes. In which layer of the submandibular triangle phlegmon has developed? Why at the opening of this phlegmon should retreat 1.5-2 cm down from the lower edge of the lower jaw?
156. To the patient K., 42 years old, diagnosed with Diffuse toxic goiter planned to perform a subtotal resection of the thyroid gland. Indicate how much thyroid parenchyma should be save? What are the most dangerous complications at this surgical intervention?
157. The patient with a foreign body of the esophagus entered the ENT department. Removal of a foreign body during esophagoscopy failed. Where foreign bodies of the cervical esophagus most often linger? Which cervical vertebra does it correspond to? Which side carry out accessing the esophagus, why?
158. After resection of the thyroid gland for thyrotoxic goiter, the patient developed hoarseness. What technical error caused this complication? What method of operation allows you to avoid this complication, as well as damage to other organs?
159. A child suffering from diphtheria have arisen sharp difficulties external breathing, acrocyanosis appeared, auxiliary muscles are involved in breathing. What is the urgent surgery shown to the baby? What are the complications that occur during this operation. List the special tools needed to execution it.
160. When performing a lower tracheostomy at the time of dissection of the trachea arterial bleeding occurred. What arteries can be damaged during tracheostomy? Specify measures to prevent these complications.
161. At 40-year-old woman in a state of clinical euthyroidism, which in childhood underwent radiation therapy for a thymus disease, currently there is a single asymptomatic node in the right lobe of the thyroid gland. When ultrasound in two projections found that education has a parenchymal structure. What is the most rational tactic at the moment? Whether the puncture aspiration biopsy is shown?
162. 50 year old man with episodes of transient blindness in the right eye needs aorta-femoral and femoral-popliteal shunting on the left due to marked intermittent claudication (endarteritis obliterans). Angiography revealed stenosis of up to 80% in both carotid bifurcations. What operation should be performed first for him him?
163. What blockade should be made to a patient with a penetrating wound of the chest, complicated by pleuropulmonary shock? Describe the technique of this type of blockade.
164. Patient A., 50 years old, suffered a terrorist attack. On admission to the emergency room of a surgical hospital, a wound cervical esophagus was diagnosed. What is the surgeon tactic? Under what kind of anesthesia should the operation be performed? What position provides the best access to the cervical part of the esophagus? Where is necessary to perform access?
165. At patient U., 18 years old, on ultrasound examination of the thyroid gland revealed a node with a diameter of 2.5 cm. Endocrinologist prescribes fine-needle aspiration biopsy of the thyroid gland. What is the purpose of this study? What are the options for performing this study, which one is preferable? What is the technique of manipulation ? What are the complications of this manipulation?
166. Patient C., retropharyngeal abscess. Explain why this patient needs to open an abscess on an emergency basis? What a dangerous complication threatens to him? Give a topographic-anatomical explanation of the development of this complication. Describe the technique of opening an abscess.

TOPIC:

«Topographical anatomy of the chest»

167. 1-в.Patient T., 29 years old, was hit in the right half of the chest with a blunt object at the level of the VII rib. Damage to which anatomical structures and layers of the chest wall was the cause of hemothorax?

168. 2-в. 18 years old, was delivered by ambulance with a stab-cut wound of the VI intercostal space along the anterior axillary line on the right. On the roentgenogram, hemo- and pneumothorax are determined. What anatomical structures are damaged in the first place?

169. 3-в. Patient S., 19 years old, fell ill with the flu. On the 3rd day, he developed severe pain in the scapular regions (no pathological changes were found on chest X-ray).What are these pains associated with?

170. 4-в. 44 years old, mammography revealed breast cancer. What additional examinations are needed to resolve the issue of the possibility of a radical operation?

171. 5-в. Why examination and palpation of a patient with suspected breast cancer is carried out at different positions of the trunk (vertical, horizontal, sitting, knee-elbow) and upper limb (set aside, raised up, palm on the back of the head, etc.)?

172. 6-в. Patient U., 35 years old, has a limitation of the displacement of the mammary gland in comparison with the opposite. Name diseases of the breast, one of the symptoms of which is the limitation of the displacement of this organ.

173. 7-в. Patient K., 33 years old, has a penetrating cut wound in the anterior part of the chest wall at the level of the III intercostal space along the middle clavicular line on the left. List the layers that make up the wound walls.

174. 8-в. The patient was found to have fractures of the lower ribs. Complains of pain in the upper abdomen. Which abdominal organs can be damaged?

175. 9-в. The patient has fractures of the right lower ribs in the posterior regions and soreness in the upper half of the right lumbar region. What organs of the retroperitoneal space can be damaged?

176. 10-в. The patient was taken to the hospital with a diagnosis of mastitis. Specify the localization of purulent accumulations in inflammation of the mammary gland?

177. 11-в.The patient has exudative pleurisy.In which pleural sinus does fluid primarily accumulate?

178. 12-в. Patient P., 53 years old, for COPD (chronic nonspecific lung disease) perform right-sided pneumonectomy.Which blood vessels adjacent to the right main bronchus can be damaged by pneumonectomy?

179. 13-в. Patient 3.,68 years old, for bronchogenic cancer of the left lung, produce pneumonectomy.What blood vessels can be damaged when the left main bronchus is treated?

TOPIC:

«Topographical anatomy of the chest»

180. 1-в. Patient V., 57 years old, after removal of the upper lobe of the left lung in the pleural cavity during puncture revealed a yellowish-milky liquid. What is the reason and what is the name of this complication?

181. 2-в. Patient U., 63 years old, after surgery on the medial surface of the lower lobe of the right lung during puncture of the pleural cavity revealed a yellowish-milky fluid. What is the reason for this? What is the name of this complication.

182. 3-в. Patient A., 27 years old, turned to the clinic with complaints of hoarseness. No pathological changes were found on the part of the upper respiratory tract. Chest fluoroscopy

was done. What kind of mass can be squeezed by a tumor (or inflammatory infiltrate) with a subsequent change in the timbre of the voice?
183. 4-в. On the chest X-ray of patient M., 10 years old, a foreign body was found in the right main bronchus. What features explain the most frequent (70%) localization of a foreign body in the right main bronchus?
184. 5-в. Patient L., 30 years old, has a penetrating chest wound in the projection of the heart. What can the patient die from? What does “dangerous” chest area mean?
185. 6-в.When the posterior wall of the thoracic esophagus was mobilized, a yellowish-milky fluid appeared. What formation is damaged? What do you do if this complication occurs?
186. 7-в. Patient N., 18 years old, swallowed a foreign body and noted chest pain. In which parts of the thoracic part of the esophagus are foreign bodies most often retained?
187. 8-в. Patient B., 40 years old, has hydropericardium. In which sinus of the pericardium, when the patient is on his back, does pathological fluid accumulate? What is this sinus limited in front, back, bottom and right, left and top?
188. Topographic anatomy of the breast.
189. 15-9-в. Through which pericardial sinus during heart surgery, a tourniquet is placed on the ascending part of the aorta and the pulmonary trunk? What is this sinus limited in front and above, behind, below?
190. Topographic anatomy of the breast.
191. 15-10-в. Masha 3., 5 years old, it is necessary to perform prompt access to the open arterial (Botallov's) duct. Between which nerves is the mediastinal pleura dissected?
192. 11-в. Patient Sh., 10 years old, with chest fluoroscopy in an upright position was diagnosed with effusion pericarditis. In which sinus of the pericardium does abnormal fluid primarily accumulate?
193. 12-в. Patient I., 17 years old, make a contrast study of the cavities of the heart through a catheter inserted into the subclavian vein. From which side is this vein being catheterized? 11 why? Which veins will the catheter go through?
194. 13-в. An elderly patient has an ischemic cerebral circulation disorder. Which branches of the aortic arch may be occluded in this patient?

TOPIC:
«Chest surgery»

195. 1-в. Patient 3., 15 years old, has cicatricial stenosis of the esophagus, not amenable to bougienage. What kind of reconstructive surgery is indicated for him? What organs can be used for this purpose?
196. 2-в. Patient V., 18 years old, has adhesive pericarditis. What operation needs to be performed? What a formidable complication can occur when the pericardium separates from the atrium?
197. 3-в. Patient K., 42 years old, with cicatricial stenosis of the esophagus, it was decided to perform plastic surgery of the small intestine. What are the methods of conducting a section of the small intestine around the neck?
198. 4-в. Patient V., 14 years old, has mitral valve insufficiency. What kind of operation is indicated for the patient?
199. 5-в. Patient I., 55 years old, has chronic ischemic heart disease (angina pectoris of exertion and rest!). Coronary angiography made it possible to establish stenosis of the mouth of the left coronary artery by 2/3 of the diameter. What kind of restoration of blood supply to the myocardium is shown to the patient?

200. 6-в. Tanya M, 4 years old, has non-closure of the arterial (Botallov's) duct. What types of surgical interventions can be used for this malformation?
201. 7-в. Patient T., 6 years old, was diagnosed with congenital stenosis of the pulmonary trunk. What operations can be shown to this patient?
202. 8-в. Patient V., 23 years old, has stenosis of the left atrioventricular opening. What operation is indicated for him? What kind of online access is used for this operation?
203. 9-в. Patient V., 23 years old, is planned for mitral commissurotomy, through which part of the heart is access to the left atrioventricular opening performed?
204. 10-в. Patient V., 23 years old, after left-sided anterior-lateral thoracotomy and pericardiotomy for mitral stenosis revealed a sharply enlarged pink left atrium and a reduced volume of the left ventricle of blue color. Name this symptom.
205. 11-в. K., 20 years old, has a stab wound in the "dangerous" region of the chest (IV intercostal space) along the left peri-sternal line. Suspected injury to the pericardium and heart. What kind of prompt access is shown to the patient? In which direction is the pericardium dissected?
206. 12-в. What characteristics of the heart wall determine the choice of wound closure method? What sutures are most often used when suturing wounds of the wall of the atria and ventricles?
207. 13-в. Patient D., 14 years old, has exudative hydropericardium with increasing symptoms of cardiovascular failure. What operation needs to be performed?
208. 14-в. Patient 3., 20 years old, has purulent pericarditis. What operation is indicated for her?
209. 15-в. Patient M., 57 years old, was diagnosed with bronchogenic cancer of the right lung. What operation is indicated for him? What online access should you use?
210. 16-в. Patient N., 65 years old, has bronchiectasis with localization of bronchiectasis in the lower lobe of the right lung. What operation is indicated for him? What access is preferable for this?
211. 17-в. The patient has an open pneumothorax. What urgently needs to be done in the form of emergency treatment? What kind of surgery should be performed in a hospital?
212. 18-в. The patient is diagnosed with a residual pleural cavity with a bronchial fistula. What operation should be taken in such a situation?
213. 19-в. century During surgery for an abscess of the lung, adhesions between the parietal and visceral pleura were not found. How can an abscess be opened?

TOPIC:
«Topographical anatomy of the abdomen (front side abdominal wall). Surgery for external abdominal hernias»

214. 1-о. Misha N., 10 years old, after an injury (hitting a soccer ball in the right lumbar region) developed hepatic vein thrombosis (Budd-Hiari syndrome). On examination, one of the symptoms of portal hypertension was found - the enlargement of the veins of the anterior abdominal wall, most pronounced in the umbilical region ("the head of the medusa"). Give an anatomical rationale for this symptom.
215. 2-о. Patient P., 21 years old, during hernia repair for a right-sided oblique inguinal hernia during the isolation of the hernial sac, the posterior wall of the inguinal canal was damaged medially from the neck of the hernial sac. Arterial bleeding has occurred. What is the source of the bleeding?

216. 3-o. Patient M, 53 years old, bleeding during the isolation of the hernial sac with a left-side femoral hernia using the inguinal approach. Which blood vessel that forms one of the walls of the femoral canal was damaged during this stage of hernia repair?
217. 4-o. A patient with a stab-cut wound of the anterior abdominal wall was delivered to the surgical department. The wound is 2 cm long in the projection of the right rectus abdominis muscle at the border of the middle and lateral third of its width, 5 cm downward from the navel. When examining the patient, the suspicion arose that the wound could be penetrating into the abdominal cavity. To clarify the diagnosis, the primary surgical treatment of the wound was carried out; during the revision, an extensive hematoma was found along the posterior wall of the rectus sheath. The abdomen is not damaged. Indicate the source of the bleeding. Between which layers of the anterior abdominal wall is the hematoma localized?
218. 5-o. Patient 3., 49 years old, for the purpose of operative access to the stomach, an upper median laparotomy was performed. Name the layers that make up the walls of the laparotomic wound.
219. 6-o. Patient 3., 67 years old, for acute appendicitis made an incision according to Lennander. After the displacement of the rectus abdominis muscle to the medial side, a vascular bundle was found on the posterior wall of the vagina. What blood vessels make up this bundle?
220. 7-o. Patient B., 48 years old, underwent cholecystectomy. The postoperative period was complicated by suppuration of the wound (to a depth of the peritoneum), in connection with which the stitches were removed. Secondary intention wound healing. A month later, the patient developed a hernial protrusion. What is the name of this type of hernia? Explain the anatomical prerequisites for the occurrence of such hernias.
221. 8-o. Patient T., 42 years old, underwent a lower midline laparotomy for a perforated typhoid ulcer of the ileum. The ulcer was sutured with a purse-string suture with peritonization with a flap of the greater omentum on the "leg". The laparotomic wound festered. On the third day, insolvency of the ileal sutures was suspected. The relaparotomy was performed with a right-sided pararectal incision. After relaparotomy, necrosis of the abdominal wall between the two incisions developed. Give an anatomical justification for this complication.
222. 9-o. Patient T., 23 years old, has a right-sided lateral oblique inguinal hernia. Name the pathogenetic and anatomical prerequisites of this hernia.
223. 10-o. Patient K., 63 years old, has a right-sided straight inguinal hernia. Name the pathogenetic and anatomical prerequisites of this hernia.
224. 11-o. Explain the essence of hernioplasty.
225. 12-o. Patient T., 23 years old, for a right-sided lateral oblique inguinal hernia, hernia repair is performed according to the method of S.I. Spasokukotsky-M. A. Kimbarovsky. Which wall of the inguinal canal is strengthened with this hernia? How are sutures applied to the spermatic cord?
226. 13-o. Patient T., 23 years old, for a right-sided lateral oblique inguinal hernia, hernia repair is performed according to the method of S.I. Spasokukotsky - M.A. Kimbarovsky. Describe the stages of inguinal canal plasty.
227. 13-o. Patient T., 23 years old, on the right-hand lateral oblique groin hernia perform a hernia in the way of S.I. Spasokukocki - M.A. Kimbarovskiy. Describe the stages of the groin canal.

TOPIC:
«Topographical abdominal anatomy (upper abdominal cavity)»

228. 1-o. Patient V., 44 years old, as a complication of a perforated ulcer of the posterior wall of the stomach, developed a right-sided subphrenic abscess. Explain the mechanism of this complication.
229. 2-o. Patient T., 26 years old, who was admitted to the surgical department with a diagnosis of acute pancreatitis, showed symptoms of diffuse peritonitis. Explain the path of the spread of exudate in the lower section (floor) of the abdominal cavity.
230. 3-o. Patient V., 16 years old, on the eighth day after appendectomy, developed intense pain in the right half of the chest and upper abdomen, aggravated by inhalation. There are symptoms of acute inflammation: fever, tachycardia, chills, leukocytosis, accelerated ESR, anemia, significant deterioration in general condition. With percussion of the right half of the chest and abdomen, Burlow's symptom was established (with percussion from the apex of the lung downwards, the following alternation of percussion sound: 1) pulmonary sound, 2) shortening (dullness), 3) tympanitis, 4) dullness).
231. What is the complication of appendectomy in a patient? Explain the difference in shades of the sound of the Burlow percussion phenomenon.
232. 4-o. Explain the peculiarity of the anatomical relationship of the gastro-colonic ligament and the mesentery of the transverse colon along the pyloric part of the stomach and the practical significance of these relationships.
233. 5-o. Patient A., 20 years old, after a perforated ulcer of the anterior wall of the stomach (accompanied by "dagger pain" in the epigastrium), the pain decreased, which makes it possible to think about covering the site of perforation. What is the abdominal organ
234. cavity is most often involved in limiting the inflammatory process by the formation of adhesions? Why? What kind of research will clarify the diagnosis?
235. 6-o. In patient N., 57 years old, after suffering acute pancreatitis, ultrasound examination revealed a rounded formation of 3.5x4.0 cm adjacent to the posterior wall of the stomach. Name this pathological process and one of the methods of its surgical treatment.
236. 7-o. What landmarks are used in cholecystectomy to isolate and ligate the biliary artery? Name the anatomical structures that make up the boundaries of the landmark, which looks like a triangle.
237. 8-o. Patient L., 43 years old, after cholecystectomy developed acute liver failure due to necrosis of the right lobe of the liver. What mistake made during cholecystectomy led to such a formidable complication? How can this complication be avoided?
238. 9-o. Patient N., 45 years old, was admitted to the surgical department with a diagnosis of mechanical intestinal obstruction. History: calculous cholecystitis (13.5 years). During the operation, it was found that the patient has gallstone intestinal obstruction. Explain the mechanism of mechanical intestinal obstruction as a complication of calculous cholecystitis.
239. 10-o. Patient 3., 27 years old, has an ulcer of the posterior wall of the upper part (ampoule, or bulb) of the duodenum. Due to the violation of the diet, the ulcer was complicated by profuse bleeding. What is the source of the bleeding? What anatomical relationship does the upper part of the duodenum have with this blood vessel?
240. 11-o. Patient K., 35 years old, was admitted to the surgical department with a picture of acute intestinal obstruction. History of prolonged fasting for weight loss. The day before, the patient had taken a copious amount of rough food. What kind of intestinal obstruction should be suspected in her? How can you try to eliminate this obstruction without surgery?
241. 12-o. Patient I., 40 years old, was admitted to the surgical department with a picture of "acute abdomen" after blunt trauma. No pathology was revealed during laparoscopy. After 20 hours the patient developed symptoms of peritonitis. Laparotomy revealed a hematoma of the retroperitoneal space and necrosis of the wall of one of the organs of the upper abdominal

cavity. The wall of which organ adjacent to the retroperitoneal space underwent necrosis? How can you inspect this organ? What is the relationship between retroperitoneal hematoma and necrosis of the organ wall?

TOPIC:

«Topographical abdominal anatomy (lower abdominal cavity)»

242. 1-o. Patient I., 22 years old, for "acute appendicitis" made an incision according to NM Volkovich-P. I. Dyakonov. Gastric contents were found in the abdominal cavity. What disease should the surgeon suspect? How did the gastric contents end up in the right iliac fossa?
243. 2-o. Patient C, 18 years old, as a complication of acute appendicitis, developed a right-sided subphrenic abscess. Explain the path of spread of purulent exudate. What are the factors contributing to its spread.
244. 3-o. Patient M., 66 years old, was admitted to the surgical department with a diagnosis of "Acute small bowel obstruction." Conservative treatment was ineffective. Laparotomy revealed infringement of a small area of the antimesenteric edge of the jejunal wall at the level of the II lumbar vertebra in the lower duodenal cavity. Give a definition to this pathological process. What acute surgical diseases of the organs of the upper part (floor) of the abdominal cavity can simulate the pathological process of sweat?
245. 4-o. Patient N., 35 years old, as a complication of destructive appendicitis, exudate accumulated in the right mesenteric sinus.
246. Name the walls of this sinus. Can exudate spread from this sinus to the left and the pelvic cavity?
247. 5-o. Due to the failure of the suture after suturing the brine of the small intestine, an interintestinal abscess formed, which broke into the left mesenteric sinus. Indicate the possible ways of spreading purulent exudate.
248. 3-6-o. Patient C, 67 years old, with laparotomy for "acute abdomen" revealed necrosis of a part of the ileum, ileocecal angle, blind and ascending colon. Thromboembolism of which artery and at what level caused intestinal necrosis within the specified limits?
249. 7-o. Patient A., 70 years old, was admitted to the surgical department. The diagnosis is acute abdomen. During the revision of the abdominal cavity, thrombosis of the inferior mesenteric artery was ascertained. In which parts of the colon is blood circulation impaired?
250. 8-o. During appendectomy after dissection of the parietal peritoneum, the surgeon found that the intestine with a large number of omental processes located in two rows was adjacent to the wound. Which gut is adjacent to the wound? When is this position of the organ possible?
251. 9-o. Patient C., 16 years old, for acute appendicitis made a right-sided oblique variable echelon incision. Significant difficulties arose in detecting the appendix. In what position of this body can such difficulties occur? What should be done in such a situation to isolate the appendix?
252. 10-o. Patient P., 17 years old, for acute appendicitis made an incision according to N.M. Volkovich-P. I. Dyakonov. When the caecum with the appendix was isolated into the wound, the latter turned out to be unchanged. The ileum was examined at a distance of up to 1 m from the ileocecal angle. Which disease should be excluded or confirmed in this situation?
253. 11-o. Patient A., 47 years old, during an operation for acute intestinal obstruction, a strand was found from the antimesenteric edge of the ileum (50 cm from the ileocecal angle) to the navel. Name one of the types of incomplete reverse development of the vitelline duct, which caused acute intestinal obstruction. What is the surgeon's tactics (there is no violation of the blood supply to the intestine)?

254. 12-o. M., 32 years old, entered the surgical department with a penetrating stab-cut wound of the abdomen along the midline, 4 cm downward from the navel. In order to examine the abdominal cavity, a mid-median laparotomy was performed. A small amount of blood was found in the abdominal cavity, and contents were found between the loops of the small intestine. Explain the sequence of the revision of the abdominal cavity. What landmarks of the abdominal cavity will the surgeon use during the revision?

TOPIC:

«Surgery on the abdominal organs. Intestinal seam»

255. 1-o. A patient was admitted to the surgical department 30 minutes after receiving a blunt abdominal trauma. A laparotomy was performed. During the revision of the abdominal cavity, a rupture of the small intestine was found at a distance of 60 cm from the duodenal flexure. Explain the tactics of the surgeon.

256. 2-o. Patient C, 42 years old, in order to remove a foreign body from the small intestine, underwent enterotomy (longitudinal incision of the intestine with a length of 2.5 cm). After removing the foreign body, the surgeon proceeded to suture the wound. In which direction should the bowel wound be sutured? What sutures will the surgeon use?

257. 3-o. When suturing the cut wound of the small intestine, the surgeon uses V.P. Mateshuk's suture. What is this intestinal suture?

258. 4-o. N., 42 years old, entered the surgical department with a penetrating stab-cut wound of the abdomen in the epigastric region. An upper midline laparotomy was performed. During the revision of the abdominal cavity, a wound was found in the anterior wall of the stomach at the border of the cardiac and pyloric regions, 1.5x0.3 cm in size. What type of surgical procedure is indicated for the patient? What is this operational technique?

259. 5-o. K., 25 years old, entered the surgical department with a penetrating knife wound in the abdomen 1 hour after the injury. Performed mid-median laparotomy. Examination of the small intestine at a distance of 80 cm from the duodenal bend (Treitz's ligament) revealed a longitudinal incised wound of the anterior wall of the intestine closer to the antimesenteric edge measuring 2x0.5 cm. What is the volume of surgery?

260. 6-o. Patient V., 37 years old, was admitted to the surgical department with blunt trauma to the abdomen. A laparotomy was performed. During the revision of the abdominal cavity, a large amount of blood was found, the detachment of the mesentery of the small intestine for 15 cm. Explain the actions of the surgeon.

261. 7-o. A patient with typhoid fever according to indications ("acute abdomen") underwent laparotomy. A revision of the abdominal cavity revealed an ulcer (0.3 cm in diameter) of the terminal ileum (20 cm from the ileocecal angle). What are the tactics of the surgeon and the technique of the operation?

262. 8-o. Patient M., 55 years old, after resection of the small intestine and imposition of enteroenteroanastomosis "end-to-end" developed mechanical intestinal obstruction due to cicatricial stenosis of the anastomosis. A second operation was performed. Explain how you can avoid cicatricial stenosis with end-to-end anastomosis?

263. 9-o. Patient K., 18 years old, perform appendectomy. Operational access - oblique variable en-echelon section according to P.M. Volkovich-P. I. Dyakonov. The wall of the colon is adjacent to the laparotomic wound. When examining this intestine, the surgeon noticed a large number of omental processes. With a napkin in Mikulich's forceps, he pushed this part of the large intestine to the left. Indicate which part of the colon is adjacent to the laparotomic wound? Where can the cecum with the appendix be located?

264. 10-o. After "classical" appendectomy, the patient was found to have an iliac process (Meckel's diverticulum). What should a surgeon do in such a situation?
265. 11-o. Patient C., 67 years old, underwent resection of the transverse colon. An interintestinal anastomosis was imposed. In the postoperative period, the patient developed an infringement of the greater omentum in the area of the anastomosis. What stage of bowel resection has not been performed?
266. 12-o. An unnatural anus was imposed on the patient according to Maidl's method. What is the purpose of the "spur"?

TOPIC:
«Operations on abdominal organs (stomach, liver, gallbladder, extrahepatic bile tract and pancreas)»

267. 1-o. Patient X., 56 years old, sutured a perforated ulcer of the anterior wall of the stomach. In what cases is this operational technique indicated? Explain the need for peritonization of the suture line with a pedicle flap of the greater omentum. In what situation is gastric resection indicated?
268. 2-o. For gastrostomy, the surgeon uses a left-sided transrectal incision. When the parietal peritoneum was dissected in the upper corner of the wound, air (pneumothorax) began to flow into the pleural cavity. How is this complication prevented?
269. 3-o. One of the surgical techniques on the stomach is gastrostomy - an external fistula of the stomach. Name its types and their differences.
270. 4-o. One of the stages of gastrostomy, for example, according to Vitzel in the modification according to Gernez and Ho-Duck-Di, is gastropexy. Explain the nature and purpose of this technique.
271. 5-o. A sharply weakened patient (cicatricial pyloric stenosis), the surgeon performs a posterior posterior colic gastroenteroanastomosis according to Gacker-Petersen. How long is the jejunal loop used? In which direction is this anastomosis applied?
272. 6-o. Patient C, 38 years old, with complicated duodenal ulcer, underwent selective vagotomy in combination with gastric drainage surgery (according to Finney). Explain the goals of these surgical interventions.
273. 7-o. During cholecystectomy, due to rupture of the liver, bleeding occurred. What are the techniques to provide temporary hemostasis? How long can a temporary stop of bleeding be applied using these techniques?
274. 8-o. Patient 3., 43 years old, was diagnosed with portal hypertension in the hospital. Which of the intravascular studies is the safest and most informative for establishing the level of portal blood flow blockage and deciding on the method of surgical treatment?
275. 9-o. A patient with gastroesophageal bleeding (from the submucosal venous plexus of the esophageal-gastric junction) was admitted to the department of surgery for portal hypertension. Name one of the conservative methods of stopping this bleeding.
276. 10-o. Patient K., 54 years old, has cirrhosis of the liver. Against the background of conservative therapy, the phenomena of portal hypertension (bleeding from the submucosal venous plexus of the esophageal-gastric junction) are increasing. Which of the surgical interventions is the most rational and effective for reducing pressure in the portal vein?
277. 11-o. Patient N., 44 years old, was diagnosed with acute destructive pancreatitis with the phenomenon of peritonitis. What are the goals of surgery for this disease?
278. 12-o. Patient N., 44 years old, with acute pancreatitis underwent upper median laparotomy. Which of the approaches to the omental bursa is the method of choice for acute

pancreatitis? How can external drainage and isolation of the bursa from the loose abdomen be ensured?
279. 13-o. Patient D., 45 years old, has acute cholecystitis. The operative access to the gallbladder was performed according to S.P. Fedorov. A pronounced adhesive process was found in the area of the gallbladder and hepato-duodenal ligament. What method of cholecystectomy will the surgeon use? Why? What are the disadvantages of this method?
280. 16-o. Literature data indicate that repeated operations on the biliary tract after cholecystectomy are 8-10 times more likely to be accompanied by complications (damage to the extrahepatic bile ducts, blood vessels and abdominal organs adjacent to the operation area). Explain what determines the risk of reoperations after cholecystectomy?
281. 17-o. Patient O., 66 years old, was admitted to the surgical department, with obstructive jaundice and cholangitis complicated by hepatic-renal failure. On palpation of the abdomen, an enlarged, painful gallbladder is determined. What method of bile duct drainage is indicated for this patient?
282. 18-o. Patient P., 11 years old, after splenoportography revealed pallor of the skin, rapid pulse, dizziness, drop in blood pressure. What formidable complication do these symptoms indicate? How can you reduce the risk of its occurrence?
283. 19-o. Masha K., 9 years old, is undergoing splenectomy for Verlhof's disease. Explain why it is not advisable to apply hemostatic clamps to the splenic artery and vein at the hilum of the spleen.

TOPIC:
«Topographical anatomy of the lumbar region and perkina space. Kidney and urinary tract surgery»

284. 1-o. Patient C, 13 years old, in the process of appendectomy (with the retrocecal position of the appendix) revealed retroperitoneal phlegmon. In what layer of retroperitoneal tissue is the purulent focus localized? Indicate the possible boundaries of its distribution. How to explain the pronounced flexion contracture of the hip with retroperitoneal phlegmon of appendicular origin?
285. 2-o. Patient K., 27 years old, after laparotomy and operative access to the omental bursa (through the gastro-colonic ligament) revealed necrosis of the body and tail of the pancreas, abscesses of the retroperitoneal space with the formation of leakage into the lateral cellular space of the subperitoneal cavity of the pelvis. Explain the path of purulent flow in this patient. Specify the possible level of dissemination of purulent flow in case of necrosis of the head of the pancreas.
286. 3-o. Patient M, 52 years old, to eliminate pain in chronic (recurrent pain) pancreatitis, a perinephral blockade is performed according to A.V. Vishnevsky. What criterion indicates to the surgeon the position of the needle in the perirenal tissue? How does the novocaine solution reach the nerve plexuses along the abdominal aorta?
287. 4-o. Strict indications for perirenal novocaine blockade are due to the frequency of occurrence of formidable
288. complications due to non-compliance with the technique of its implementation. List the possible complications of this blockade according to A.V. Vishnevsky.
289. 5-o. Patient M., 65 years old, with a presumptive diagnosis of hypernephroma of the left kidney, it was decided to make an X-ray examination of the retroperitoneal space with the imposition of pneumoretroperitoneum. In which part of the retroperitoneal space is oxygen (air) distributed? What anatomical landmarks are used to insert the needle for the purpose of applying pneumoretroperitoneum? What position is shown to the patient in this study?

290. 6-o. Patient T., 21 years old, with a long course of spondylitis of tuberculous etiology, revealed a "cold" abscess (purulent leakage) of the anterior region of the thigh downward from the inguinal ligament (near the lesser trochanter). Explain the path of spread of purulent flow in this patient.
291. 7-o. In order to clarify the diagnosis in kidney disease, selective angiography is used: a radiopaque substance is injected through a catheter brought to the orifice of the renal artery. What is the name of this catheter? How does it get to the orifice of the renal artery? At the level of which vertebrae are the mouths of the renal arteries located?
292. 8-o. Patient K., 37 years old, was admitted to the urology department with a diagnosis of renal colic. Complaints about attacks of severe pain in the lumbar region with irradiation to the lower abdomen, groin, external genitalia and upper medial thigh. What topographic and anatomical relationships between the ureter and adjacent formations along the psoas major muscle can explain the irradiation of pain?
293. 9-o. Sh., 19 years old, has a kidney injury due to blunt trauma to the right lumbar region. The extent of kidney damage is unknown. When examining the patient, there is pain on palpation and percussion, muscle tension and swelling of the right lumbar region, microhematuria. Taking into account the characteristic feature of kidney injury, the discrepancy between the severity of their damage and clinical manifestations, it was decided to perform an X-ray examination. What research is most often used in patients with closed kidney injury as an objective method of differential diagnosis?
294. 10-o. Patient G., 36 years old, was diagnosed with right-sided nephroptosis with orthostatic arterial hypertension, which disappears in the horizontal position. The patient is expected to have functional renal artery stenosis. What are the causes of functional renal artery stenosis?
295. 11-o. In patients with urolithiasis, in 20%, bilateral nephrolithiasis is observed, characterized by a severe course and the development of renal failure. Why, in case of anuria, due to a violation of the outflow of urine from the kidneys, is it advisable first of all to remove stones from the kidney in which the obstruction occurred later?
296. 13-o. In the urological clinic, patient P., 50 years old, was diagnosed with pyonephrosis with a sharp dysfunction of the right kidney. The kidney looks like a multi-chamber bag filled with stones. The renal parenchyma is atrophied. The patient is shown nephrectomy. What should a surgeon be sure of when a nephrectomy is needed? What is the sequence of processing of the elements of the "leg" of the kidney in this situation?
297. 14-o. Patient M, 47 years old, performs left-sided nephrectomy. When mobilizing the upper end (pole) of the kidney, the surgeon entered the pleural cavity. Explain the anatomical prerequisites for the occurrence of this complication, what consequences it may be accompanied by. What symptom would indicate the development of pneumothorax? How should the surgeon eliminate it?
298. 15-o. During nephrectomy, in the process of excretion of the kidney from the fat capsule, arterial bleeding occurred. The renal vein and artery are intact. Explain the possible cause of this bleeding. How can such a complication be ruled out?
299. 16-o. In chronic renal failure, hemodialysis (artificial kidney) is used, which has significant drawbacks - palliative treatment in the form of repeated "connections of the artificial kidney apparatus. What method of surgical treatment of chronic renal failure is the most effective at the present stage of medical development?"

TOPIC:
«Topographic anatomy of the pelvis and perineum. Operations on the pelvic organs»

300. 1-o. K., 26 years old, has a pubic bone fracture with extraperitoneal damage to the bladder wall. What principles should be the basis for the surgical treatment of a wound in this situation?
301. 2-o. With extraperitoneal damage to the bladder, it becomes necessary to drain the retropubic (prevesical) space. What drainage methods can be used in patients with phlegmon of this space?
302. 3-o. The urologist sutures the wound of the bladder wall. What anatomical relationship of this organ with the peritoneum determines the difference in the technique of suturing the wound of its wall? How many rows of stitches should be placed on the bladder wall? Which layers of the organ are captured in the seam?
303. 4-o. Patient I., 26 years old, was diagnosed with parametritis. From the anamnesis: 1.5. month before going to the gynecologist, the patient was being treated for cystitis. What is the structure of the urethra that determines the frequency of cystitis in women? Explain the relationship between cystitis and parametritis.
304. 5-o. Patient 3., 18 years old, to clarify the diagnosis: "Disturbed ectopic pregnancy" puncture of the posterior vaginal fornix was performed. In what case will the diagnosis be confirmed by this study? What are the tactics for confirming the diagnosis?
305. 6-o. Patient V., 65 years old, has a prolapse of the cervix. History of chronic bronchitis, three births (the first birth was complicated by a rupture of the "obstetric perineum" of the III degree). What does "obstetric" perineum mean? What factors explain the cause of the prolapse of the cervix in patient V.?
306. 7-o. Patient Ch., 27 years old. make a right-sided transvaginal ureterolithotomy (the wall of the ureter is dissected under visual control). In what part of the pelvic ureter are stones most often localized, why? What formidable complication should be excluded during ureterolithotomy in patient Ch.? What is the reason for the possibility of such a complication?
307. 8-o. In proctological practice, there are two forms of hemorrhoids: external and internal. Indicate the sources of these forms of hemorrhoids. Why are hemorrhoids, as a rule, localized at 3, 7, 11 hours (when the patient is supine).
308. 9-o. The first stage of surgical intervention for paraproctitis is the opening and drainage of the peri-rectal abscess with a radial or semilunar incision. In what form of paraproctitis is a radial incision used, in which - lunar? Explain the essence of the second stage of surgical intervention for paraproctitis.
309. 10-o. Patient 3., 39 years old, at the surgeon's appointment. Complaints about acute, throbbing pain in the perineum at the anus, aggravated by movement, juremene position of the body, tension of the abdominal press (cough, defecation). Stool retention, dysuric disorders are noted. Body temperature in the evenings is 38-39 °. Examination revealed: the skin of the perineum at the anus at 12 o'clock was hyperemic, radial folding was smoothed. What is the form of paraproctitis in the patient 3. How often does it occur? Why did the patient develop dysuric disorders?
310. 11-o. Patient K., 38 years old, has submucous paraproctitis. What access will be used to open the purulent focus? In what direction is the incision made when opening the abscess?
311. 12-o. A feature of the clinical picture of a posterior rectal abscess is a pronounced pain syndrome from the very onset of the disease: pains are localized in the rectum and sacrum, and are aggravated by defecation and sitting position. External signs of paraproctitis appear only in advanced cases (pus breaks out into the intestine or onto the skin of the perineum). What valuable diagnostic information about retrorectal paraproctitis can be obtained by palpation of the coccyx and digital examination of the rectum?

312. 13-o. Patient B., 44 years old, was admitted to the proctology department. Diagnosis: "Pelvic-rectal paraproctitis". The operation is shown. How is the approach to such an abscess carried out? What is the disadvantage of transrectal access in pelvic-rectal paraproctitis?
313. 14-o. Patient C, 47 years old, was admitted to the proctology department. Diagnosis: “Stage III-IV rectal cancer. The tumor is localized 10 cm from the anus ”. For what purpose should the liver be examined (ultrasound, computed tomography, etc.)? Specify the lymphogenous pathways of rectal cancer metastasis.
314. 15-o. As V.D. Fedorov and Yu.V. Dultsev note, hemorrhoidectomy according to Milligan - Morgan in the modification of the Research Institute of Proctology is a more perfect operation compared to other operations (ligation and cutting off of hemorrhoids according to L.V. Martynov - A.N. Red). What is the essence of Milligan-Morgan hemorrhoidectomy as modified by the Research Institute of Proctology?
315. 16-o. Patient M., 53 years old, for rectal cancer perform abdominal-perineal extirpation. During the operation, the surgeon encountered difficulties in mobilizing the anterior rectal wall. What feature of the structure of the fascial capsule of the rectum explains the difficulty of separating the anterior wall of this organ from the vagina?