CLINICAL ANATOMY AND OPERATIVE SURGERY OF THE LOWER AND UPPER LIMBS

Methodical instructions

Ministry of Education and Science of Ukraine
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5013 Methodical instructions

for practical lessons
on the topic ***«Clinical Anatomy and Operative Surgery of the Lower and Upper Limbs»***
on the discipline **«Clinical Anatomy and Operative Surgery»**
for students of speciality *222 «Medicine»*
full-time form of education

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Department of Morphology

Practical training № 1

Topic. Clinical anatomy and operative surgery of the gluteal region, hip joint and thigh.

The purpose of the lesson:

1. To study the clinical anatomy of the gluteal region, posterior region of the thigh and surgical anatomy of the hip joint.
2. To ground the ways of spreading the purulent process from the cellular spaces of the gluteal region.
3. To learn how to make incisions for opening phlegmons of the gluteal region and the posterior region of the thigh.
4. To learn how to expose the vessels and nerves of the gluteal region.
5. To study and substantiate the symptoms of the sciatic nerve injury.
6. To be able to expose the sciatic nerve and to learn suture technique.
7. To learn the weak points of the hip joint capsule and determine the ways of spreading paraarticular phlegmons in coxitis.
8. To master the technique of hip joint puncture.
9. To master the technique of arthrotomy and resection of the hip joint.
10. To study the topographical anatomy of the anterior region of the thigh.
11. To study the topography of neurovascular bundles in the upper, middle and lower third of the thigh.
12. To master the methods of hernioplasty of the femoral hernia.
13. To learn and substantiate the symptoms of the femoral and obturator nerves injuries.

Control questions:

1. Clinical anatomy of the gluteal region. Superficial, deep compartments, cellular spaces of the gluteal region and their content.

2. Surgical anatomy of the neurovascular bundles of the supra- and infrapiriform foramens. Incisions for exposing neurovascular bundles and for opening phlegmons of the gluteal region.

3. Clinical anatomy of the posterior region of the thigh. Incisions for opening phlegmons of the posterior region of the thigh.

4. Surgical anatomy of the sciatic nerve.

5. Exposure and suture of the sciatic nerve. Indications and suture technique.

6. Surgical anatomy of the hip joint.

7. The ways of spreading paraarticular phlegmons of the hip joint.

8. Puncture, arthrotomy and resection of the hip joint: indications and execution technique.

9. Clinical anatomy of the anterior region of the thigh.

10. Clinical anatomy of the anterior compartment of the thigh. Incisions for opening the phlegmon of the anterior compartment of the thigh.

11. Clinical anatomy of the medial compartment of the thigh. Incisions for opening the phlegmon of the medial compartment of the thigh.

12. Topography and content of the vascular and muscular lacunae.

13. Surgical anatomy of the femoral canal.

14. Surgical anatomy of the femoral hernias.

15. Operative therapy of femoral hernia. Features of surgical treatment of the strangulated femoral hernias.

16. Surgical anatomy of the femoral triangle, obturator and adductor canals.

17. Surgical anatomy of the femoral artery.

Practical skills:

1. To show on the physical body:
   - muscles of the gluteal region;
   - suprapiriform foramen, infrapiriform foramen;
   - superior gluteal artery, superior gluteal vein, superior gluteal nerve;
   - inferior gluteal artery, inferior gluteal vein, inferior gluteal nerve;
   - sciatic nerve;
   - posterior femoral cutaneous nerve;
   - internal pudendal artery, internal pudendal vein;
   - pudendal nerve;
   - muscles of the posterior compartment of the thigh;
   - Roser – Nelaton line;
   - projection of the greater trochanter (Kuslik method);
   - femoral nerve and its branches;
   - lateral femoral cutaneous nerve;
   - obturator nerve;
   - great saphenous vein;
   - superficial inguinal lymph nodes;
   - muscles of anterior compartment of the thigh;
   - muscles of medial compartment of the thigh;
   - muscular lacuna and its content;
   - vascular lacuna and its content;
   - femoral canal, its foramens and walls;
   - femoral triangle and its content;
   - femoral artery and its branches;
   - adductor canal, its borders and content;
   - obturator canal and its content.
2. To perform on the physical body:
   - incision for opening the subfascial phlegmon of the gluteal region;
   - incision for opening the phlegmon of the posterior compartment of the thigh;

- Hagen-Thorn incision to exposure the neurovascular bundles in the gluteal region;
- sciatic nerve exposure;
- puncture of the hip joint;
- arthrotomy of the hip joint by Langenbeck, Ollier – Murphy – Lexer and Boytchev approaches;
- resection of the hip joint;
- hernioplasty in femoral hernia by Lockwood, Bassini, Ruji, Parlavecchio, Reich;
- the main stages of surgery in strangulated femoral hernia;
- incisions for opening the phlegmon of the anterior and medial compartments of the thigh.

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Practical training № 2

Topic. Clinical anatomy and operative surgery of the knee, knee joint, lower leg, retromalleolar medial region and foot.

The purpose of the lesson:

1. To study the surgical anatomy of the knee area and master the topography of the synovial bursae.
2. To study the surgical anatomy of the knee joint.
3. To ground the ways of periarticular phlegmons spreading in the knee joint.
4. To learn how to perform a knee joint puncture.
5. To master the technique of arthrotomy and resection of the knee joint.
6. To study the topography of the anterior, posterior and lateral fibro-osseous compartments of the lower leg.
7. To learn and substantiate the symptoms of tibial and common peroneal nerves injuries.
8. To learn the medial, middle and lateral compartmens of the plantar surface of the foot and their content.
9. To substantiate the ways of a purulent process spreading in phlegmon of the lower leg and foot.
10. To learn how to make the incisions for drainage of the phlegmon of the lower leg and foot.

Control questions:

1. Clinical anatomy of the anterior and posterior region of the knee.
2. Surgical anatomy of the popliteal fossa.
3. Surgical anatomy of the knee joint.
4. The ways of paraarticular phlegmon spreading of the knee joint.
5. Puncture of the knee joint: indications, technique.
6. Arthrotomy and resection of the knee joint: indications, technique.

7. Clinical anatomy of the anterior region of the lower leg. The structure of the anterior compartment of the lower leg.

8. The structure of the lateral compartment of the lower leg and the superior muscular-peroneal canal.

9. Clinical anatomy of the posterior region of the lower leg. Superficial fibrous and deep fibro-osseous compartment of the lower leg. The structure of the cruropopliteal canal.

10. Clinical anatomy of the medial malleolus region. Surgical anatomy of the medial malleolar canal.

11. Clinical anatomy of the plantar surface of the foot.

12. Surgical anatomy of the medial, lateral and central compartmens of the plantar surface of the foot. The structure of the plantar and calcaneal canal.

13. The ways of purulent process spreading in phlegmon of the lower leg and foot. Incisions for drainage of the phlegmon of the lower leg and foot.

Practical skills:

1. To show on the physical body:

- great saphenous vein;
- saphenous nerve;
- Pirogov's canal and small saphenous vein;
- popliteal fossa;
- popliteal artery and its branches;
- tibial nerve and its branches;
- common peroneal nerve;
- Jobert's fossa;
- knee joint;
- medial and lateral menisci of knee joint;
- knee joint ligaments;
- superficial peroneal nerve;
- lateral sural cutaneous nerve;
- medial sural cutaneous nerve;
- sural nerve;

- anterior, lateral, posterior compartment of the lower leg and their content;
- cruropopliteal canal (Gruber's canal) and its content;
- canalis musculoperoneus superior and its content;
- canalis musculoperoneus inferior and its content;
- medial malleolar canal and its content;
- medial, lateral and central compartmens of the plantar surface of the foot and their content;
- calcaneal canal and its content;
- plantar canal and its content;
- projection lines on the plantar surface of the foot for incisions by Delorme.

2. To perform on the physical body:

- puncture of the knee joint;
- arthrotomy of the knee joint (skin incision by Textor);
- knee joint resection by Textor and Kornev;
- incisions for exposure of phlegmon of the anterior, lateral and posterior compartments of the lower leg;
- incisions for exposure of phlegmon of the medial, lateral and central compartmens of the plantar surface of the foot.

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Practical training № 3

Topic. Clinical anatomy and operative surgery of the scapular region, axillary region, deltoid region, arm region and shoulder joint.

The purpose of the lesson:

1. To study the clinical anatomy of the scapular and deltoid regions.
2. To study the surgical anatomy of the shoulder joint.
3. To ground the ways of the purulent-inflammatory process spreading from the scapular and deltoid regions.
4. To master the technique of exposure and drainage of the fibro-osseous compartments of the scapular region, prescapular fissures and subdeltoid cellular space.
5. To substantiate the ways of paraarticular phlegmon spreading in purulent omarthritis.
6. To master the technique of puncture, arthrotomy and resection of the shoulder joint.
7. To study the clinical anatomy of the axillary region and arm region.
8. To master the topography of the neurovascular structures of the axillary region and the shoulder region.
9. To ground the ways of the purulent process spreading from the axillary fossa.
10. To learn how to make incisions for drainage of the purulent process of the axillary fossa.

Control questions:

1. Clinical anatomy of the scapular region.
2. Surgical anatomy of the fibro-osseous compartments of the scapular region, prescapular fissures and incisions for their drainage.
3. Clinical anatomy of the deltoid region.
4. Surgical anatomy of the subdeltoid cellular space and incisions for its drainage. The ways of the inflammatory process spreading from the subdeltoid cellular space.

5. Surgical anatomy of the shoulder joint. The ways of periarticular phlegmon spreading.

6. Puncture, arthrotomy and resection of the shoulder joint: indications, technique.

7. Clinical anatomy of the axillary region.Clinical anatomy of the axillary fossa: walls, triangles, foramina and content.

8. Surgical anatomy of the axillary artery.

9. Surgical anatomy of the brachial plexus. Brachial plexus block: indications, technique.

10. Topography of the axillary lymph nodes.

11. The ways of the purulent-inflammatory process spreading of the axillary fossa. Incisions for the phlegmon exposure of the axillary fossa.

12. Clinical anatomy of the anterior region of the arm. Compartments of the arm and their content. Surgical anatomy of the neurovascular bundles in the upper, middle and lower third of the arm.

13. Clinical anatomy of the posterior region of the arm. Radial nerve canal.

14. Exposure of the radial and median nerves in the middle third of the arm: indications, technique.

Practical skills:

1. To show on the physical body:

- supraspinal, infraspinal, subscapular fibro-osseous compartments and their content;
- muscles that attach to the scapula;
- arteries that form the scapular arterial circle;
- anterior and posterior prescapular fissure;
- subdeltoid cellular space and its content;
- intertubercular synovial sheath;
- ligaments of the shoulder joint;
- coracoacromial ligament;
- axillary fossa and its content;
- triangles of the axillary fossa and their content;

- triangular space and its content;
- quadrangular space and its content;
- axillary artery and its branches;
- brachial plexus and its branches;
- cephalic vein;
- basilic vein;
- anterior compartment of the arm and its content;
- posterior compartment of the arm and its content;
- neurovascular bundle in the anterior region of the arm;
- humeromuscular canal and its content.

2. To perform on the physical body:

- incision for drainage of the phlegmon of the fibro-osseous compartments of the scapular region, prescapular fissures and subdeltoid cellular space;
- puncture, arthrotomy and resection of the shoulder joint;
- brachial plexus block by Kulenkampff;
- incisions for exposure of the phlegmon of the arm;
- exposure of the radial nerve in the middle third of the arm;
- exposure of the median nerve in the middle third of the arm.

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Practical training № 4

Topic. Clinical anatomy and operative surgery of the regions of elbow, forearm, wrist and hand.

Purpose of the lesson:

1. To study the surgical anatomy of the cubital fossa, elbow joint and forearm.
2. To master the technique of puncture, arthrotomy and resection of the elbow joint.
3. To master the symptoms of median, ulnar and radial nerves injury.
4. To ground the ways of inflammatory process spreading in forearm phlegmon.
5. To learn how to make incisions for drainage of the forearm phlegmon.
6. To study the clinical anatomy of the wrist area and hand.
7. To master the structure of canals, synovial sheaths of the tendons of the hand and fingers flexors and extensors.
8. To master the technique of the surgical treatment of panaritium.
9. To ground the ways of purulent-inflammatory process spreading in phlegmon of the hand.
10. To be able to make incisions for drainage of the phlegmon of the hand.
11. To ground the symptoms that occur when the nerves of the upper limb are damaged.
12. To master the technique of conduction anesthesia of the median, ulnar and radial nerves.
13. To master the technique of conduction anesthesia by Lukashevich – Oberst and Brown – Usoltseva.

Control questions:

1. Clinical anatomy of the elbow region: lateral, medial and central compartments and their content.

2. Clinical anatomy of the cubital fossa. Surgical anatomy of the medial and lateral neurovascular bundles of the cubital fossa.

3. Surgical anatomy of the elbow joint. Weak points of the elbow joint capsule. The ways of the inflammatory process spreading in periarticular phlegmon.

4. Puncture, arthrotomy and resection of the elbow joint: indications, technique.

5. Clinical anatomy of the anterior region of the forearm. Anterior and lateral compartments of the forearm and their content.

6. Surgical anatomy of the vessels and nerves of the anterior region of the forearm.

7. Surgical anatomy of the cellular spaces of the anterior region of the forearm. Incisions for phlegmon drainage of the superficial, median and deep cellular tissue space of the anterior forearm.

8. Clinical anatomy of the posterior region of the forearm. Posterior compartment of the forearm and its content.

9. Clinical anatomy of the wrist area. Surgical anatomy of the wrist canals. Anatomical snuffbox. Topography of the canals and synovial sheaths of the extensor tendons of the wrist and fingers.

10. Clinical anatomy of the palm.

11. Surgical anatomy of the lateral, median, and central compartments of the palm. Surgical anatomy of the subaponeurotic and subtendinous cellular spaces of the central compartment of the palm.

12. Surgical anatomy of the synovial sheaths of the flexor tendons of the fingers.

13. Panaritium: types of panaritium and methods of surgical treatment.

14. Incisions in tendovaginitis and phlegmons of the hand.

15. Functional and sensation disorders in the hand, which occur when the nerves of the upper limb are damaged.

16. Technique of conduction anesthesia of the median, ulnar and radial nerves.

Practical skills:

1. To show on the physical body:
   - basal vein, cephalic vein, median cubital vein, lateral antebrachial cutaneous nerve, medial antebrachial cutaneous nerve;
   - sulci cubitales anteriores medialis (between pronator teres and brachial muscle) et lateralis (between brachioradial muscle and brachial muscle)
   - lateral, medial and central compartments of the elbow and their content;
   - cubital fossa (brachioradial muscle and pronator teres);
   - brachial artery, brachial veins and median nerve;
   - radial nerve, radial collateral artery and radial collateral vein;
   - anterior, lateral and posterior compartments of the forearm and their content;
   - sulcus radialis, sulcus medianus and sulcus ulnaris of the forearm;
   - m. supinator canal and its content;
   - superficial branch of the radial nerve, radial artery and radial veins;
   - median nerve and a. comitans n. mediani;
   - ulnar nerve, ulnar artery and ulnar vein;
   - anterior interosseous nerve, artery and veins;
   - arterial anastomosis of the elbow joint;
   - Pirogov – Parona space;
   - carpal tunnel: borders and content;
   - ulnar canal (Guyon's canal) and its content;
   - canalis carpi radialis and its content;
   - anatomical snuffbox: borders and content;
   - six compartments of the extensor tendons of the wrist and fingers on the posterior surface of the wrist;

- medial, lateral and central compartmens of the palm and their content;
- subaponeurotic and subtendinous cellular spaces of the central compartment of the palm and their content;
- superficial palmar arch;
- deep palmar arch;
- common palmar digital arteries and nerves;
- proper palmar digital arteries and nerves.

2. To perform on the physical body:

- puncture, arthrotomy and resection of the elbow joint;
- incisions to drain the phlegmon of the forearm;
- conduction anesthesia by Lukashevich – Oberst;
- conduction anesthesia by Brown – Usoltseva;
- conduction anesthesia of the median, ulnar and radial nerves;
- incision to drain paronychia;
- incisions to drain subcutaneous panaritium;
- incisions to drain the tendon panaritium;
- incisions to drain the phlegmon of the hand;
- incisions to drain the phlegmon of the Pirogov – Parona space;
- incisions to drain the subfascial phlegmon of the thenar and hypothenar.

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Practical training № 5

Topic. Vessels operations. Amputations and disarticulations.

The purpose of the lesson:

1. To learn surgical anatomy of the upper and lower limbs arteries.
2. To master the technique of exposure and ligation of upper and lower limbs arteries.
3. To study the ways of collateral blood circulation after ligation of upper and lower limbs main arteries.
4. To master the technique of vascular suture.
5. To master the methods of surgical treatment of lower limbs varicose veins.
6. To learn how to perform thromboembolectomy.
7. To master the technique of amputation and exarticulation of fingers and toes.
8. To master the technique of foot amputation by Sharp.
9. To master the technique of osteoplastic amputation by Pirogov.
10. To learn how to perform three-moment amputation of the thigh by Pirogov.
11. To master the technique of thigh amputation by Gritti – Shimanovskiy.
12. To learn the stages of extremity replantation and to master the technique of nerve and tendon suturing.

Control questions:

1. Surgical anatomy of the axillary artery. The technique of exposure of the axillary artery and collateral blood circulation after its ligation.

2. Surgical anatomy of the brachial artery. The technique of exposure of the brachial artery in the upper, middle, lower third of the shoulder. The ways of collateral blood circulation after ligation of the brachial artery.

3. The technique of exposure of the ulnar and radial arteries.

4. Surgical anatomy of the femoral artery. The technique of exposure of the femoral artery. The ways of the collateral blood circulation after ligation of the femoral artery.

5. Surgical anatomy of the popliteal artery. The technique of exposure of the popliteal artery with the help of central and median approach. The ways of collateral blood circulation after ligation of the popliteal artery.

6. The technique of exposure of the anterior and posterior tibial arteries.

7. Arterioplasty, vasoligation, vessel suture, thromboembolectomy, thrombendarterectomy, angioplasty, vein bypass: indications, technique.

8. Methods of surgical treatment of varicose veins of the lower extremities.

9. Indications for amputation and disarticulation. Classification of amputations.

10. Stages of amputation. Calculation of the flap length. Ligation of vessels, nerves and bones.

11. The technique of amputation and disarticulation of fingers and toes.

12. The technique of arm and forearm amputation.

13. The technique of foot amputation by Sharp.

14. The technique of osteoplastic amputation by Pirogov and in Guinther modification: indications, technique.

15. The technique of thigh amputation by Gritti – Shimanovskiy and in Sabaneev and Albrecht modification: indications and technique.

16. Three-moment amputation of the thigh by Pirogov: indications and technique.

17. Replantation of the large segment of the limb: marking of anatomical formations, technique of restoration of bony skeleton, main blood circulation, muscles, tendon and nerves.

Practical skills:

1. To show on the physical body:
   - axillary artery and its branches;
   - brachial artery and its branches;
   - femoral artery and its branches;
   - popliteal artery and its branches.

2. To perform on the physical body:
   - exposure and ligation of the axillary artery;
   - exposure and ligation of the brachial artery in the upper, middle and lower third of the shoulder;
   - exposure and ligation of the radial artery;
   - exposure and ligation of the ulnar artery;
   - exposure and ligation of the femoral artery in the upper, middle and lower third of the thigh;
   - exposure and ligation of the popliteal artery with the help of the central and median approach;
   - exposure and ligation of the anterior and posterior tibial arteries;
   - Carrel vascular suture;
   - Morozova vascular suture;
   - Poliantseva vascular suture;
   - Brian – Jaboulay vascular suture;
   - thromboembolectomy;
   - amputation of the nail phalanx;
   - Farabeuf disarticulation of the II finger;
   - Luppi disarticulation of the III finger;
   - Malgaigne disarticulation of the I finger;
   - Garengeot disarticulation of toes;
   - amputation of the forearm in the lower third;

- amputation of the shoulder in the middle third with two-flap method;
- foot amputation by Sharp;
- osteoplastic amputation by Pirogov and in Guinther modification;
- three-moment amputation of the thigh by Pirogov;
- thigh amputation by Gritti – Shimanovskiy;

3. To demonstrate on the physical body:

- methods of surgical treatment of varicose veins of the lower extremities: Troyanov – Trendelenburg, Babcock, Madelung, Narath, Linton, Cockett, Schede – Kocher;
- technique of epineural suture;
- technique of tendon suture by Lange, Cuneo, Bunnell.

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Test questions and answers for practical lesson № 1

1. What is gluteal region bounded by from above:
+ crista iliaca;
– margins of gluteus maximus;
– os sacrum, os coccygis;
– line that connect spina iliaca anterior superior with trochanter major ossis femoris?

2. What is gluteal region bounded by below:
+ sulcus glutealis;
– os sacrum, os coccygis;
– line that connect spina iliaca anterior superior with trochanter major ossis femoris;
– crista iliaca?

3. What is gluteal region bounded by laterally:
+ line that connect spina iliaca anterior superior with trochanter major ossis femoris;
– os sacrum, os coccygis;
– crista iliaca;
– sulcus glutealis?

4. Name the nerves that pass in subcutaneous tissue of the gluteal region:
+ n.n. clunium superiores, r. cutaneus lateralis n. iliohypogastricus, r. cutaneus (n. cutaneus femoris lateralis), n.n. clunium inferiores, n.n. clunium medii;
– r. cutaneus n. ilioinguinalis, r. cutaneus n. obturatorius, r.r. cutanei anteriores n. femoralis;
– r. femoralis n. genitofemoralis, n. cutaneus femoris posterior, n.n. clunium inferiores, n.n. clunium medii;
– n.n. clunium superiores, r. genitalis n. genitofemoralis, r. femoralis n. genitofemoralis, r.r. cutanei anteriores n. femoralis, r. cutaneus n. obturatorius?

5. Name the muscles of the first layer of the gluteal region:

+ m. gluteus maximus;

– m. gluteus medius;

– m. gluteus minimus;

– m. piriformis?

6. Name the muscles of the second layer of the gluteal region:

+ m. gluteus medius, m. piriformis, m. obturatorius internus, m. gemellus superior et inferior, m. quadratus femoris;

– m. gluteus minimus, m. obturatorius externus, m. gluteus medius, m. piriformis;

– m. gemellus superior, m. obturatorius internus, m. quadratus femoris, m. gluteus minimus;

– m. gluteus minimus, m. obturatorius externus?

7. Name the muscles of the third layer of the gluteal region:

+ m. gluteus minimus, m. obturatorius externus;

– m. gluteus maximus;

– m. gluteus medius, m. piriformis, m. obturatorius internus, m. gemellus superior et inferior, m. quadratus femoris;

– m. obturatorius internus, m. gluteus medius, m. quadratus femoris?

8. What is located in the superficial fascial sheath of the gluteal region:

+ m. gluteus maximus;

– m. gluteus medius;

– m. gluteus minimus;

– m. quadratus femoris?

9. What is located in the deep fascial sheath of the gluteal region:

+ m. gluteus medius, m. piriformis, m. gemellus superior, m. obturatorius internus, m. gemelleus inferior, m. quadratus femoris, m. gluteus minimus;

– m. gluteus maximus;

– m. gluteus minimus, m. obturatorius externus;

– m. gluteus medius, m. piriformis, m. obturatorius internus, m. gemellus superior et inferior, m. quadratus femoris?

10. What is located between the fascial sheaths of the gluteal region:

+ supratrochanteric and deep cellular space;

– suprapiriform cellular space;

– infrapiriform foramen;

– neurovascular formations?

11. What is located in the supra-acetabular cellular space:

+ branches of the superior gluteal neurovascular bundle;

– branches of the inferior gluteal neurovascular bundle;

– gluteal nerve;

– pudendal neurovascular bundle?

12. What is located in the deep cellular space of the gluteal region:

+ all mentioned below;

– gluteal nerve;

– lower gluteal neurovascular bundle;

– pudendal neurovascular bundle?

13. What is suprapiriform foramen bounded by:

+ superior border of incisura ischiadica major and m. piriformis;

– inferior border of m. piriformis and lig. sacrospinale et m. gemellus superior;

– m. gemellus superior and inferior;

– between lig. sacrospinale and lig. sacrotuberale?

14. What goes through foramen suprapiriforme:

+ a., v. et n. gluteus superior;

– n. ischiadicus, n. cutaneus femoris posterior, n. gluteus inferior, a. et v. glutea inferior, a. pudenda interna, v. pudenda interna, n. pudendus;

– inferior gluteal neurovascular bundle;

– pudendal neurovascular bundle?

15. Name the projection of exit site of a. glutea superior:

+ medially and 1–2 cm downwards from the point located on the border of upper and middle third of the line

that passes from spina iliaca posterior superior to trochanter major;

– below the middle of the line that combines spina iliaca posterior superior to tuber ischiadicum;

– on the middle of the line that connects tuber ischiadicum with trochanter major;

– medially and 1–2 cm downwards from the point located on the border of upper and middle third of the line that connects spina iliaca posterior superior with tuber ischiadicum?

16. What vessel is necessary to ligate when the gluteal region is injured:

+ a. iliaca interna;

– a. iliaca externa;

– a. glutea superior;

– a. pudenda interna?

17. What does n. gluteus superior innervate:

+ m. gluteus medius, m. gluteus minimus, m. tensor fascia latae;

– m. gluteus maximus;

– m. gluteus medius, m. piriformis, m. obturatorius internus, m. gemellus superior et inferior, m. quadratus femoris;

– m. gluteus minimus, m. obturatorius externus?

18. In bilateral injury of which nerve to “goose gait” appears:
+ n. gluteus superior;
– n. gluteus inferior;
– n. pudendus;
– n. cutaneus femoris posterior?

19. What is observed when n. gluteus superior is damaged:
+ difficulties with abduction of the hip;
– difficulties with adduction of the hip;
– difficulties with flexion of the hip;
– difficulties with extension of the hip?

20. Where does the internal foramen of suprapiriform canal open:
+ to subperitoneal space of cavity of the lesser pelvis;
– to the deep cellular space of the gluteal region;
– in fossa ischiorectalis;
– in canalis obturatorius?

21. Where does the external foramen of suprapiriform canal open:
+ to the deep cellular space of the gluteal region;
– to subperitoneal space of cavity of the lesser pelvis;
– canalis femoralis;
– canalis inguinalis?

22. Where can pus spread from the deep cellular space of the gluteal region:
+ to cellular tissue of pelvis, fossa ischiorectalis and popliteal fossa;
– to the anterior fascial sheath of the hip;
– to cellular tissue of the inguinal canal;
– to retroperitoneal cellular space?

23. What is infrapiriform foramen bounded by:

+ inferior edge of m. piriformis and lig. sacrospinale et m. gemellus superior;

– between incisura ischiadica minor and m. piriformis;

– superior edge of incisura ischiadica major and m. piriformis;

– between lig. sacrospinale and lig. sacrotuberale?

24. What goes go through infrapiriform foramen from outside to inside:

+ n. ischiadicus, n. cutaneus femoris posterior, n. gluteus inferior, a. et v. glutea inferior, a. pudenda interna, v. pudenda interna, n. pudendus;

– n. ischiadicus, n. gluteus inferior, a. pudenda interna, v. pudenda interna, n. pudendus;

– n. cutaneus femoris posterior, n. ischiadicus, n. gluteus inferior, a. et v. glutea inferior, a. et v. pudenda interna, n. pudendus:

– n. ischiadicus, n. cutaneus femoris posterior, a. et v. pudenda interna, n. pudendus, a. et v. glutea inferior, n. gluteus inferior?

25. What is observed when n. gluteus inferior is damaged:

+ difficulties with extension of the hip;

– difficulties with flexion of the hip;

– difficulties with abduction of the hip;

– difficulties with adduction of the hip?

26. What is greater ischiadic filled with:

+ neurovascular formation and m. piriformis:

– neurovascular formation and m. obturatorius internus;

– m. gemellus superior;

– m. gemellus inferior?

27. What anatomical formations pass through lesser ischiadic foramen:

+ a. pudenda interna, v. pudenda interna, n. pudendus and m. obturatorius internus;

– n. cutaneus femoris posterior and m. piriformis;

– n. gluteus inferior, a. et v. glutea inferior and m. gluteus maximus, m. gemellus inferior?

28. Explain why intramuscular injections of medicines are performed in the superolateral square of the gluteal region:

+ for the least possibility of injury of suprapiriform and infrapiriform foramina content;

– for the acceleration of saturation;

– for the least possibility of injury of spinal column;

– for the least possibility of injury of a. femoralis?

29. Which incision is performed for exposure of vessels and nerves of the gluteal region:

+ Radzievsky – Gagin-Torn's incision;

– Langenbeck's incision;

– Ollier – Murphy – Lexer's incision;

– Gibson – Kaplan's incision?

30. Which incision is used for exposure of phlegmon of the gluteal region:

+ the incision is performed from spina iliaca posterior superior to trochanter major, splitting apart the muscle;

– the incision is made 1–2 cm medially and downwards from the point located on the border of superior and middle third of the line that pass from spina iliaca posterior superior to trochanter major;

– the incision is made along the Rozer – Nelaton line;

– Radzievsky – Gagin-Torn's incision?

31. Name intraarticular ligament of the hip joint:

+ lig. transversum acetabuli and lig. capitis femoris;

– lig. iliofemorale and lig. pubofemorale;
– lig. ischiofemorale;
– zona orbicularis and lig. capitis femoris?

32. Name the ligament that strengthens the hip joint anteriorly:
+ lig. iliofemorale;
– lig. pubofemorale;
– lig. ischiofemorale;
– zona orbicularis?

33. Name the ligament that strengthens the hip joint medially:
+ lig. pubofemorale;
– lig. iliofemorale;
– lig. ischiofemorale;
– lig. capitis femoris?

34. Name the ligament that strengthens the hip joint posteriorly:
+ lig. ischiofemorale;
– lig. iliofemorale;
– lig. pubofemorale;
– lig. transversum acetabuli?

35. Which muscles strengthen the hip joint anteriorly:
+ m. iliopsoas, m. rectus femoris et m. pectineus;
– m. obturatorius externus et m. obturatorius internus;
– m. quadratus femoris et m. piriformis;
– m. piriformis, m. gemelli, m. obturatorius internus, m. obturatorius externus et m. quadratus femoris?

36. Which muscle strengthens the hip joint inferiorly:
+ m. obturatorius externus;
– m. obturatorius internus;
– m. gluteus maximus;

– m. quadratus femoris?

37. Which muscles strengthen the hip joint posteriorly:
+ m. piriformis, m. gemelli, m. obturatorius internus, m. obturatorius externus et m. quadratus femoris;
– m. iliopsoas, m. rectus femoris et m. pectineus;
– m. gluteus medius et m. gluteus minimus;
– m. gluteus maximus et m. quadratus femoris?

38. Which muscles strengthen the hip joint laterally:
+ m. gluteus medius et m. gluteus minimus;
– m. gluteus maximus;
– m. quadratus femoris;
– m. iliopsoas, m. rectus femoris et m. pectineus?

39. Name the anterior weak point in the hip joint capsule:
+ between lig. iliofemorale and lig. pubofemorale;
– between lig. pubofemorale and lig. ischiofemorale;
– between lig. ischiofemorale and lig. iliofemorale;
– between lig. pubofemorale and zona orbicularis?

40. Name the weak point in the hip joint capsule inferiorly:
+ between lig. pubofemorale and lig. ischiofemorale;
– between lig. iliofemorale and lig. pubofemorale;
– between lig. ischiofemorale and lig. iliofemorale;
– between lig. pubofemorale and zona orbicularis?

41. Name the weak point in the hip joint capsuleposteriorly:
+ between lig. ischiofemorale and lig. iliofemorale;
– between lig. iliofemorale and lig. pubofemorale;
– between lig. pubofemorale and lig. ischiofemorale;
– between lig. pubofemorale and zona orbicularis?

42. Name the collateral artery of the hip joint that refers to a. iliaca interna:

+ a. iliolumbalis;
– a. curcumflexa ilium profunda;
– a. curcumflexa femoris lateralis;
– a. curcumflexa femoris medialis?

43. Which arteries take part in blood supply of the hip joint:
+ r. profundus a. circumflexa femoris medialis, r. ascendens a. circumflexa femoris lateralis, r. acetabularis a. obturatoria, a. glutea superior et inferior;
– a. curcumflexa femoris medialis, a. iliaca interna, a. epigastrica superficialis, a. pudenda interna et. a. pudenda externa;
– a. circumflexa ilium superficialis, a. epigastrica superficialis;
– a. epigastrica inferior, a. femoralis, a. circumflexa femoris medialis et a. circumflexa femoris lateralis?

44. Where can pus spread from the hip joint anteriorly:
+ to fossa iliaca, lumbar region, muscles sheath of the medial group of the hip and bursa suprapatellaris;
– to popliteal fossa, under m. gluteus minimus, to the anterior fascial sheath of the hip and canalis femoropopliteus;
– to cellular tissue of the inguinal canal, to neurovascular formation and m. piriformis;
– to cellular tissue of pelvis, retroperitoneal cellular space, to popliteal fossa and fossa ischiorectalis?

45. Where can pus spread from the hip joint posteriorly:
+ under m. gluteus major, cavity of the lesser pelvis, to popliteal fossa, to fossa ischiorectalis;
– to popliteal fossa, under m. gluteus minimus, to anterior fascial sheath of the hip and canalis femoropopliteus;
– to cellular tissue of the inguinal canal, to neurovascular formation and m. piriformis;
– to cellular tissue of pelvis, retroperitoneal cellular space, to popliteal fossa and fossa ischiorectalis?

46. Name projecting line that defines the normal position of trochanter major by Kuslik's method:

+ from spina iliaca anterior superior to the external end of the gluteal fold;

– from spina iliaca anterior superior to ischial tuberosity;

– from pubic tubercle to spina iliaca anterior superior;

– from trochanter major to the middle of the inguinal ligament?

47. When a surgeon investigated the hip joint of a child he defined that top of trochanter major was on the level of Rozen-Nelaton line. How does this line pass:

+ from spina iliaca anterior superior to ischial tuberosity;

– from trochanter major to symphysis;

– from spina iliaca anterior superior to the middle of the inguinal ligament;

– from spina iliaca anterior superior to the femoral head?

48. Name the external mark of needle puncture when paracentesis of the hip joint is performed laterally:

+ trochanter major;

– trochanter minor;

– tuber ischiadicum;

– spina iliaca anterior superior?

49. Name the external mark of needle puncture when paracentesis of the hip joint is performed anteriorly:

+ at the point in the middle of the line that pass from the top of trochanter major to the middle of the inguinal ligament;

– at the point in the middle of the line from spina iliaca anterior superior to the middle of the inguinal ligament;

– at the point in the middle of the line that pass from the top of trochanter minor to the middle of the inguinal ligament;

– at the point located in the middle of distance between trochanter major and symphysis?

50. Name the lateral approach that is performed for patients with coxitis:

+ Ollier-Murphy – Lexer's;

– Langenbeck's;

– Radzievsky – Gagin-Torn's;

– Gibson – Kaplan's?

51. Which nerves do innervate the skin of the posterior region of the thigh:

+ n. cutaneus femoris lateralis, n. cutaneus femoris posterior;

– n. saphenus, n.n. clunium inferiores, n.n. clunium medii;

– r. femoralis n. genitofemoralis, n. pudendus;

– n. ischiadicus, n. cutaneus femoris posterior, n. gluteus inferior?

52. What is located in the posterior compartment of the thigh:

+ m. biceps femoris, m. semitendinosus, m. semimembranosus, n. ischiadicus;

– m. gracilis, m. biceps femoris, m. pectineus, n. cutaneus femoris posterior;

– m. biceps femoris, m. adductor longus, m. semitendinosus, n. femoralis;

– m. semimembranosus, m. vastus lateralis, m. pectineus, n. cutaneus femoris lateralis?

53. What is observed when the sciatic nerve is damaged:

+ complete paralysis of the foot and toes, impossible knee flexion, anesthesia of the anticnemion and foot except zone of n. saphenous;

– impossible dorsal flexion of foot and toes and rotation of foot outwards, anesthesia of the anticnemion and foot except zone of n. ischiadicus;

– impossible flexion of the hip and knee joints, ankle flexion of foot is disordered;

– the lower limb is bent in the hip and knee joints and rotated to the center?

54. Name the projecting line of the sciatic nerve exposure:

+ from the middle of distance between ischial tuberosity and trochanter major to the middle of the popliteal fossa;

– from the middle of distance between ischial tuberosity and trochanter major to medial epicondyle of the thigh;

– from the middle of distance between ischial tuberosity and trochanter major to the head of fibula;

– from the middle of distance between trochanter major and femoral head to the middle of popliteal fossa?

55. Which artery provides the sciatic nerve:

+ a. comitans n. ischiadici;

– a. profunda femoris;

– a. obturatoria;

– a. glutea inferior?

56. Where does the artery depart that provides the sciatic nerve:

+ from a. glutea inferior;

– from a. profunda femoris;

– from a. obturatoria;

– from a. pudenda interna?

57. What is located medially to the sciatic nerve in the upper third of the thigh:

+ caput longum m. biceps femoris;

– caput breve m. biceps femoris;

– m. semimembranosus;

– m. adductor magnus?

58. What is located anteriorly to the sciatic nerve in the upper third of the thigh:

+ m. adductor magnus;
– caput longum m. biceps femoris;
– caput breve m. biceps femoris;
– m. semitendinosus?

59. What is located posteriorly to the sciatic nerve in the middle third of the thigh:

+ caput longum m. biceps femoris;
– caput breve m. biceps femoris;
– m. adductor magnus;
– m. semimembranosus, m. semitendinosus?

60. What is located laterally to the sciatic nerve in the lower third of the thigh:

+ m. biceps femoris;
– caput longum m. biceps femoris;
– caput breve m. biceps femoris;
– m. semitendinosus, m. semimembranosus?

61. What is located medially to the sciatic nerve in the lower third of the thigh:

+ m. semitendinosus, m. semimembranosus;
– m. biceps femoris, m. adductor magnus;
– caput longum m. biceps femoris;
– caput breve m. biceps femoris?

62. Name the projecting line for exposure of phlegmons of the posterior region of the thigh:

+ in upper and lower third of the thigh along the external edge of m. biceps femoris;
– along the external edge of m. semitendinosus;
– along the external edge of m. semimembranosus;
– along the external edge of m. vastus lateralis?

63. Where is the incision performed for resection of the hip joint by Langenbeck:

+ from spina iliaca posterior superior to trochanter major splitting apart the muscles;

– from spina iliaca anterior superior to trochanter major splitting apart the muscles;

– arciform incision posteriorly to trochanter major;

– from the middle of distance between the ischial tuberosity and trochanter major?

64. Which stage follows the incision of skin, subcutaneous tissue, proper fascia and knocking off of trochanter major with fixed to it muscles with the chisel in resection of hip joint by Langenbeck:

+ the joint capsule is T-like dissected and the femoral neck is freed;

– the joint capsule is dissected along the upper edge of m. piriformis;

– arciform incision of joint capsule is performed and drainage tube is sed;

– the joint capsule is moved apart with hooks and the femoral head is freed?

65. Which stage follows the incision of joint capsule in resection of hip joint by Langenbeck:

+ all the mentioned below;

– the femoral head is luxated to the injury, lig. capitis femoris is transected and the femoral head is cut off with Gigli saw;

– lavage of the cavity of joint capsule with antiseptic, inserting the drainage tube and stitching the wound with loose closure;

– splint is put on the limb for immobilization?

66. The anterior surface of the thigh is bounded superiorly by:

+ lig. inguinale;

– crista iliaca;
– arcus iliopectineus;
– lig. pectineale?

67. The anterior surface of the thigh is bounded inferiorly by:
– line that passes two fingers higher than the base of patella;
– transverse line that connects epicondyles of femoral bone;
– line that passes two fingers lower than the base of patella;
– lig. patellae?

68. Into which regions the space under the inguinal ligament is divided:
+ muscular and vascular lacunae;
– hernial, muscular and vascular lacunae;
– hernial and vascular lacunae;
– muscular and vascular lacunae, femoral canal?

69. Lacuna vasorum is bounded posteriorly and inferiorly by:
+ Cooper's ligament;
– shaft of ilium;
– arcus iliopectineus;
– Gimbernat's ligament?

70. Which nerves go through the subcutaneous tissue of the anterior region of the thigh:
+ r. femoralis n. genitofemoralis, n. cutaneus femoris lateralis, r.r. cutanei anteriores n. femoralis, r. cutaneus n. obturatorius;
– r. cutaneus n. ilioinguinalis, r. femoralis n. genitofemoralis, n.n. clunium inferiores, n.n. clunium medii;
– n.n. clunium superiores, n. cutaneus femoris lateralis, n.n. clunium inferiores, n.n. clunium medii;
– r. genitalis n. genitofemoralis, r. cutaneus n. iliohypogastricus, r.r. cutanei anteriores n. femoralis, r. cutaneus n. obturatorius?

71. Which arteries go through the subcutaneous tissue of the anterior region of the thigh:

+ a.a. pudendae externae, a. circumflexa ilium superficialis, a. epigastrica superficialis;

– a. epigastrica inferior, a. circumflexa femoris medialis, a. circumflexa femoris lateralis;

– a. glutea superior, a. femoralis, a. profunda femoris;

– r. profundus a. circumflexa femoris medialis, r. ascendens a. circumflexa femoris lateralis?

72. Which veins go through the subcutaneous tissue of the anterior region of the thigh:

+ v.v. pudendae externae, v. epigastrica superficialis, v. circumflexa ilium superficialis, v. saphena magna;

– v.v. pudendae internae, v. epigastrica inferior, v. femoralis, v. obturatoria, v. saphena parva;

– v.v. glutea inferior, v. glutea inferior, arcus venosus dorsalis pedis;

– all the abovementioned?

73. Which vessel goes through the medial part of the surface layer of deep fascia of thigh:

+ v. saphena magna;

– v. saphena parva;

– v. femoralis;

– a. femoralis?

74. What is located in the anterior compartment of the thigh:

+ m. quadriceps femoris;

– a. et v. femoralis;

– n. femoralis;

– m. sartorius?

75. Which vein is projected on the bottom of fossa ovalis:

+ v. femoralis;
– v. circumflexa femoris lateralis;
– v. obturatoria;
– v. femoralis profunda?

76. What is femoral triangle bounded medially by:
+ lateral edge of musculus adductor longus;
– medial edge of m. sartorius;
– lateral edge of musculus adductor brevis;
– lateral edge of musculus adductor magnus?

77. What is femoral triangle bounded laterally by:
+ medial edge of m. sartorius;
– lateral edge of musculus adductor longus;
– lateral edge of musculus adductor brevis;
– lateral edge of musculus adductor magnus?

78. What is femoral triangle bounded superiorly by:
+ lig. inguinale;
– margo falciformis;
– lig. pectineale;
– arcus iliopectineus?

79. What is the bottom of femoral triangle formed by:
+ m. pectineus, m. iliopsoas;
– m. adductor longus, m. sartorius;
– m. adductor brevis, m. gracilis;
– m. adductor magnus, m. iliopsoas?

80. What passes in the base of femoral triangle:
+ a. femoralis, v. femoralis, n. femoralis;
– a. pudenda externa, v. pudenda externa, n. pudendus;
– a. profunda femoris, v. saphena magna, n. saphenus;
– a. obturatoria, v. obturatoria, n. obturatorius?

81. Which nerve goes together with a. femoralis in the lower corner of the femoral triangle:

+ n. saphenus;
– n. femoralis;
– n. obturatorius;
– ramus femoralis n. genitofemoralis?

82. Name the relation of elements of neurovascular fascicle in the femoral triangle from inside to outside:

+ v. femoralis, a. femoralis, n. femoralis;
– v. femoralis, n. femoralis, a. femoralis;
– a. femoralis, v. femoralis, n. femoralis;
– n. femoralis, a. femoralis, v. femoralis?

83. What is lacuna musculorum bounded anteriorly and superiorly by:

+ lig. inguinale;
– lig. pectineale;
– lig. lacunare;
– arcus iliopectineus?

84. What is lacuna musculorum bounded posteriorly and inferiorly by:

+ body of ilium;
– lig. pectineale;
– crista iliaca;
– lig. inguinale?

85. What is lacuna musculorum bounded laterally by:

+ crista iliaca;
– arcus iliopectineus;
– lig. lacunare;
– lig. pectineale?

86. What is lacuna musculorum bounded medially by:

+ arcus iliopectineus;
– crista iliaca;
– lig. lacunare;
– lig. pectineale?

87. What goes through lacuna musculorum:
+ m. iliopsoas, n. cutaneus femoris lateralis, n. femoralis;
– m. pectineus, r. genitalis n. genitofemoralis;
– m. psoas major, v. femoralis, a., v. et n. obturatorius;
– a. femoralis, v. femoralis, r. femoralis n. genitofemoralis?

88. Which muscles does n. femoralis innervate:
+ m. sartorius and m. quadriceps femoris;
– m. gracilis and m. biceps femoris;
– m. semimembranosus and m. adductor magnus;
– m. adductor longus, m. adductor brevis?

89. What is lacuna vasorum bounded anteriorly and superiorly by:
+ lig. inguinale;
– lig. pectineale;
– lig. lacunare;
– arcus iliopectineus?

90. What is lacuna vasorum bounded posteriorly and inferiorly by:
+ Cooper's ligament;
– body of ilium;
– arcus iliopectineus;
– Gimbernat's ligament?

91. What is lacuna vasorum bounded medially by:
– Gimbernat's ligament;
– arcus iliopectineus;
– v. femoralis;

– Cooper’s ligament?

92. What is lacuna vasorum bounded laterally by:
+ arcus iliopectineus;
– lig. lacunare;
– v. femoralis;
– Cooper’s ligament?

93. What goes through lacuna vasorum:
+ a. femoralis, v. femoralis, r. femoralis n. genitofemoralis;
– m. iliopsoas, n. cutaneus femoris lateralis, n. femoralis;
– m. pectineus, r. genitalis n. genitofemoralis;
– m. psoas major, v. femoralis, a., v. et n. obturatorius?

94. What is inner foramen of femoral canal is bounded anteriorly by:
+ lig. inguinale;
– lig. pectineale;
– lig. lacunare;
– arcus iliopectineus?

95. What is anulus femoralis bounded posteriorly by:
+ lig. pectineale;
– lig. inguinale;
– lig. lacunare;
– body of ilium?

96. What is anulus femoralis bounded laterally by:
+ sheath of v. femoralis;
– lig. lacunare;
– arcus iliopectineus;
– a. femoralis?

97. What is anulus femoralis bounded medially by:
+ lig. lacunare;

– sheath of v. femoralis;
– a. femoralis;
– arcus iliopectineus?

98. What is the anterior wall of femoral canal formed by:
+ superficial layer of fascia lata;
– deep layer of fascia lata;
– superficial fascia;
– fascia cribrosa?

99. What is the posterior wall of femoral canal formed by:
+ deep layer of fascia lata;
– cornu superius margo falciformis;
– superficial layer of fascia lata;
– cornu inferius margo falciformis?

100. What is lateral wall of femoral canal formed by:
+ sheath of v. femoralis;
– margo falciformis;
– a. femoralis;
– arcus iliopectineus?

101. Name the external foramen of femoral canal:
+ hiatus saphenus;
– anulus femoralis;
– fossa femoralis
– Jobert's fossa?

102. Name the layers that cover the hernial sac in femoral hernia:
+ skin, subcutaneous tissue, superficial fascia, subperitoneal tissue;
– skin, superficial layer of fascia lata;
– skin, deep layer of fascia lata, fascia pectinea;

– skin, subcutaneous tissue, superficial fascia, lamina vastoadductoria?

103. What goes through hiatus saphenus:

+ vasa lymphatica, v. saphena magna, a. pudenda externa, r. femoralis n. genitofemoralis;

– a. femoralis, v. femoralis, r. femoralis n. genitofemoralis;

– nodi lymphatici, r. genitalis n. genitofemoralis, m. iliopsoas, n. cutaneus femoris lateralis;

– m. pectineus, r. genitalis n. genitofemoralis, v. femoralis, a., v. et n. obturatorius?

104. Where are the incisions performed to drain phlegmons of the anterior compartment of the thigh:

+ along the external edge of m. rectus femoris;

– along the external edge of m. sartorius;

– along the external edge of m. vastus lateralis;

– along the inernal edge of m. sartorius?

105. What anatomically weak point is the hernial orifice in femoral hernia:

+ inner foramen of femoral canal;

– lateral inguinal fossa;

– medial inguinal fossa;

– external foramen of femoral canal?

106. In what direction the crural ring is dissected in strangulated hernia:

+ medially;

– laterally;

– upwards;

– downwards?

107. What is dissected in strangulated femoral hernia:

+ lig. lacunare;

– lig. inguinale;
– lig. pectineale;
– arcus iliopectineus?

108. Name the main operation methods of femoral hernias:
+ Lockwood – Bassini, Ruggi – Parlavecchio, Reich;
– Kukudzhanov, Postempsky, Oppel;
– Mayo, Sapyezhko, Lexer;
– Girard, Spasokukotskyi with Kimbarovsky suture, Martynov?

109. Name the complications that can occur during the operation of femoral hernia with the help of inguinal access:
+ all the below mentioned;
– damage of a. and v. femoralis;
– damage of a. obturatorius;
– damage of a. epigastrica inferior?

110. Which tissues are stitched for strengthening the internal foramen of femoral canal during operations with the help of inguinal access:
+ abdominal internal oblique muscle, Poupart's ligament, periosteum of pubic bone, Cooper's ligament;
– abdominal external oblique muscle, transverse fascia, edge of rectus abdominis muscle, Gimbernat's ligament;
– Poupart's ligament, margo falciformis, fascia cribrosa, periosteum of pubic bone;
– cornu superius margo falciformis, cornu inferius margo falciformis, fascia pectinea, Poupart's ligament?

111. Which tissues are taken into stitch for strengthening the external foramen of femoral canal:
+ margo falciformis, fascia pectinea;
– abdominal internal oblique muscle, fascia cribrosa;
– cornu superius margo falciformis;

– cornu inferius margo falciformis?

112. Which tissues are stitched in plasty of hernial orifice with the help of femoral access by Bassini technique:

+ Poupart's ligament, periosteum of pubic bone, Cooper's ligament, margo falciformis, fascia pectinea;

– Gimbernat's ligament, arcus iliopectineus;

– lower edge of internal oblique and transverse abdominal muscle, transverse fascia;

– all the above mentioned?

113. Name the relation of elements of neurovascular fascicle in the middle third of the hip (from front to back):

+ n. saphenus, a. femoralis, v. femoralis;

– v. femoralis, a. femoralis, n. saphenus;

– v. femoralis, n. saphenus, a. femoralis;

– a. femoralis, v. femoralis, n. saphenus?

114. Name the projecting line of a. femoralis:

+ Quain's line;

– Lesshaft's line;

– Jacoby's line;

– Roser – Nelaton line?

115. A surgeon defined Quain's line for exposure of a. femoralis. Where does the line go:

+ from the middle of Poupart's ligament to the medial epicondyle of the hip;

– from the middle of Poupart's ligament to the lateral epicondyle of the hip;

– from the point on the border 2/5 of medial and 3/5 of lateral length of Poupart's ligament to tuberculum adductorium;

– from the middle of Poupart's ligament to tuberositas tibiae?

116. Name the branches of n. femoralis:

+ r.r. musculares, r.r. cutanei anteriores, n. saphenus;
– n. cutaneus femoris lateralis, r. genitalis n. genitofemoralis;
– n. suralis, n. peroneus profundus, n. peroneus superficialis;
– n. tibialis, n. obturatorius?

117. What is observed when n. femoralis is damaged below the Puopart's ligament:
+ impossible to extend the crus, disorder of sensibility in the area of innervation of n. saphenus;
– impossible dorsal flexion of foot and toes, disorder of sensibility in the area of innervation of n. peroneus superficialis;
– impossible plantar flexion of foot, disorder of sensibility in the area of innervation of n. ischiadicus;
– disorder of adduction of the hip, impossible flexion of the crus?

118. What is Hunter's canal bounded laterally by:
+ m. vastus medialis;
– m. sartorius;
– m. vastus lateralis;
– m. adductor longus?

119. What is Hunter's canal bounded medially by:
+ m. adductor magnus;
– m. vastus medialis;
– lamina vastoadductoria;
– m. vastus lateralis?

120. What is Hunter's canal bounded anteriorly by:
+ lamina vastoadductoria;
– m. pectineus;
– m. vastus medialis;
– m. adductor magnus?

121. What goes through the superior foramen of the adductor canal:

+ a. femoralis, v. femoralis, n. saphenus;
– a. genus descendens, v. genus descendens, n. femoralis;
– a. profunda femoris, v. femoralis, n. obturatorius;
– a. femoralis, v. femoralis, n. femoralis?

122. What goes through the anterior foramen of the adductor canal:

+ a. genus descendens, v. genus descendens, n. saphenus;
– a. femoralis, v. saphena magna, n. peroneus communis;
– a. profunda femoris, v. saphena parva, r.r. cutanei anteriores n. femoralis;
– a. femoralis, v. femoralis, n. saphenus?

123. What goes through the inferior foramen of the adductor canal:

+ a. femoralis, v. femoralis;
– a. genus descendens, n. femoralis;
– v. genus descendens, n. saphenus;
– a. genus descendens, v. genus descendens?

124. What is the inferior foramen of the adductor canal bounded:

+ m. vastus medialis, m. adductor magnus;
– m. vastus lateralis, m. adductor longus;
– superficial layer of fascia lata;
– lamina vastoadductoria, m. sartorius?

125. Where is the exit foramen of obturator canal located:

+ behind m. pectineus;
– anteriorly to m. pectineus;
– behind m. adductor longus;
– anteriorly to adductor brevis?

126. Name the relation of elements of neurovascular fascicle in the obturator canal from outside to inside:

+ n. obturatorius, a. obturatoria, v. obturatoria;

– v. obturatoria, a. obturatoria, n. obturatorius;

– a. obturatoria, v. obturatoria, n. obturatorius;

– v. obturatoria, n. obturatorius, a. obturatoria?

127. What is observed when n. obturatorius is damaged:

+ difficulties with adduction of the hip, it is impossible to put one leg on another, disorder of sensibility of the lower third of internal surface of the hip;

– difficulties with extension of the hip, disorder of sensibility below the Poupart's ligament;

– impossible to extend the crus, disorder of sensibility in the area of innervation of n. saphenus;

– impossible dorsal flexion of foot and toes, disorder of sensibility in the area of innervation of n. peroneus superficialis?

128. What incisions are performed to drain the phlegmons of medial compartment of the hip:

+ incision 2–3 cm medially from Quain's line;

– along the lateral edge of m. gracilis;

– along the medial edge of m. sartorius;

– along the internal edge of m. rectus femoris?

129. Name the methods of herniatomy which are performed to close hernial orifice from the hip side in femoral hernias:

+ Lockwood – Bassini;

– Ruggi – Parlavecchio;

– Reich;

– Mayo, Sapyezhko, Lexer?

130. Name the methods of herniatomy which are performed to close hernial orifice from the side of inguinal canal in femoral hernias:

+ Ruggi – Parlavecchio, Reich;
– Lockwood – Bassini;
– Kukudzhanov, Postempskyi, Oppel;
– Mayo, Sapyezhko, Lexer?

131. How is Lockwood's incision performed:
+ downwards and parallel to the inguinal ligament or vertically;
– with two transverse incisions that edge hernial protrusions;
– with horizontal incision around the hernial protrusion;
– above and parallel to lig. inguinale?

132. How is Ruggi's incision performed:
+ upwards and parallel to lig. inguinale;
– downwards and parallel to the inguinal ligament or vertically;
– with horizontal incision around hernial protrusion;
– up and medially to the navel?

133. How is the plasty of hernial orifice by Lockwood's method in femoral hernia performed:
– the internal femoral ring is stitched by anchoring of inguinal ligament to Cooper's ligament and periosteum of pubic bone with 2–3 sutures;
– by anchoring of the inferior edge of internal oblique and transverse muscles to lig. inguinale, and with the second raw of interrupted suture the upper piece is anchored;
– by anchoring of the edges of internal oblique and transverse abdominis muscles and transverse fascia of abdomen to inguinal ligament, Cooper's ligament and periosteum of pubic bone with one raw of interrupted sutures;
– the inguinal ligament is anchored to Coopers' ligament and periosteum of pubic bone; the transverse fascia and aponeurosis of external oblique abdominis muscle are sutured?

134. How is the plasty of hernial orifice by Lockwood – Bassini method in femoral hernia performed:

+ the internal femoral ring is stitched by anchoring of inguinal ligament to Cooper's ligament and periosteum of pubic bone with 2–3 sutures, and the external foramen is stitched by anchoring of second raw of sutures between margo falciformis and fascia pectinea;

– the internal femoral ring is stitched by anchoring of inguinal ligament to Cooper's ligament with 2–3 sutures;

– the inguinal ligament is anchored to Coopers' ligament and periosteum of pubic bone, the transverse fascia and aponeurosis of external oblique abdominis muscle are stitched;

– putting purse-string suture around the hernial orifice and anchoring of interrupted sutures on the anterior wall of sheath of rectus abdominis muscles?

135. Which stage of operation will be the next after the incision of skin, subcutaneous tissue, superficial fascia, aponeurosis of external oblique abdominal muscle by Ruggi's method:

+ the posterior wall of the inguinal canal is dissected, hernial sac is retrograde removed, by dissected and treated according to typical method;

– the inguinal ligament is anchored to Coopers' ligament and periosteum of pubic bone, the transverse fascia and aponeurosis of external oblique muscle are sutured;

– the hernial orifices are dissected with transverse cut, the inferior edge of aponeurosis is stitched to the posterior surface of the upper piece wich П-like stitches, and the free upper edge of the piece is fixed to the anterior surface of the lower piece;

– putting purse-string suture around the hernial orifice and putting interrupted suture on aponeuroses of abdominal muscles?

136. How is plasty of hernial orifice by Ruggi's method in femoral hernia performed:

+ the inguinal ligament is anchored to Coopers' ligament and periosteum of pubic bone; the transverse fascia and aponeurosis of external oblique muscle are sutured;

– the internal femoral ring is stitched by anchoring of inguinal ligament to Cooper's ligament and periosteum of pubic bone with 2–3 sutures, and the external foramen is stitched by anchoring of second raw of sutures between margo falciformis and fascia pectinea;

– by anchoring of the edges of internal oblique and transverse abdominal muscles to Cooper's ligament and periosteum of pubic bone; with the second raw of interrupted sutures these muscles are anchored to the edge of inguinal ligament;

– by anchoring of the edges of internal oblique and transverse muscles and transverse fascia of abdomen to inguinal ligament, Cooper's ligament and periosteum of pubic bone with one raw of interrupted suture?

Test questions and answers for practical lesson № 2

1. What is located in subcutaneous tissue of the anterior area of the knee:

+ v. saphena magna, n. saphenus, r.r. cutanei anteriores, n. cutaneus femoris lateralis, r. anterior n. obturatorius, bursa subcutanea prepatellaris, bursa infrapatellaris;

– v. saphena magna et v. saphena parva, n. saphenus, r. anterior n. obturatorius, n.n. cutanei surae medialis et n.n. cutanei surae lateralis, n. suralis, n. cutaneus femoris posterior;

– n. cutaneus surae medialis, n. cutaneus surae lateralis, m. gastrocnemius, m. plantaris, m. soleus;

– n. saphenus, r. anterior n. obturatorius, n. cutaneus femoris posterior, n. cutaneus femoris lateralis, n. cutaneus surae lateralis, bursa suprapatellaris?

2. Which arteries form rete patellare:

+ r. descendens a. circumflexa femoris lateralis, a.a. genus superiores et inferiores medialis et lateralis, r.r. articulares a. genus descendens, a. recurrens tibialis anterior;

– a. circumflexa femoris medialis, a. circumflexa femoris lateralis, a. obturatoria;

– a. genus superior medialis, a. genus superior lateralis, a. genus inferior medialis, a. genus inferior lateralis, a. genus media, a. recurrens tibialis posterior;

– a.a. pudendae externae, a. circumflexa ilium superficialis, a. epigastrica superficialis?

3. Name which from the synovial bursas do not relate to the anterior area of the knee:

+ bursa subtendinea m. gastrocnemii medialis, bursa m. semimembranosus;

– bursa subcutanea prepatellaris, bursa infrapatellaris;

– bursa subfascialis prepatellaris, bursa subtendinea prepatellaris;

– bursa suprapatellaris, bursa infrapatellaris profunda?

4. What is located in subcutaneous tissue of the posterior area of the knee:

+ n. saphenus, r. anterior n. obturatorius, n. cutaneus femoris posterior, n. cutaneus femoris lateralis, n. cutaneus surae lateralis;

– r. descendens a. circumflexa femoris lateralis, a.a. genus superiores et inferiores medialis et lateralis, r.r. articulares a. genus descendens, a. recurrens tibialis anterior;

– a. circumflexa femoris medialis, a. circumflexa femoris lateralis, a. obturatoria;

– n. cutaneus surae medialis, v. saphena parva, v. saphena magna?

5. What is fossa popliteal bounded superiorly and medially by:

+ m. semitendinosus, m. semimembranosus;

– m. biceps femoris;

– the medial head of gastrocnemius muscle;

– m. adductor magnus?

6. What is popliteal fossa bounded superiorly and laterally by:

+ m. biceps femoris;

– the lateral head of gastrocnemius muscle;

– m. vastus lateralis;

– m. flexor hallucis longus?

7. What is popliteal fossa bounded inferiorly and laterally by:

+ the external head of gastrocnemius muscle, m. plantaris;

– m. biceps femoris;

– m. vastus lateralis;

– the internal head of gastrocnemius muscle?

8. What is popliteal fossa bounded inferiorly and medially by?

+ the internal head of gastrocnemius muscle;
– m. semitendinosus, m. semimembranosus;
– tendon of m. adductor magnus;
– m. plantaris?

9. What is Joubert's fossa bounded anteriorly by:
+ tendon of m. adductor magnus, m. vastus medialis;
– the external head of gastrocnemius muscle, m. plantaris;
– m. semitendinosus, m. semimembranosus, m. gracilis;
– m. sartorius?

10. What is Joubert's fossa bounded posteriorly by:
+ m. semitendinosus, m. semimembranosus, m. gracillis;
– the external head of gastrocnemius muscle, m. plantaris;
– tendon of m. adductor magnus, m. vastus medialis;
– medial epicondyle of the hip, medial head of gastrocnemius muscle?

11. What is Joubert's fossa bounded inferiorly by:
+ medial epicondyle of the hip, medial head of gastrocnemius muscle;
– m. semitendinosus, m. semimembranosus, m. gracilis;
– m. sartorius;
– the external head of gastrocnemius muscle, m. plantaris?

12. What is Joubert's fossa bounded superiorly by:
+ m. sartorius;
– m. vastus medialis;
– m. adductor magnus;
– m. semitendinosus, m. semimembranosus?

13. Which approach is used to expose the popliteal artery:
+ through Joubert's fossa;
– Textor's incision;
– Kornev's incision;

– Payr's approach?

14. How are the elements of neurovascular fascicle in the popliteal fossa located:

+ mostly superiorly (posteriorly) n. tibialis and n. peroneus communis, anteriorly and medially v. poplitea, deeper a. popliteal;

– mostly superiorly (posteriorly) n. tibialis, anteriorly to it a. poplitea, more anteriorly to it and deeper from the artery v. poplitea;

– mostly superficial a. poplitea, anteriorly to it v. poplitea, deeper, on the bottom of popliteal fossa n. tibialis;

– mostly superficial v. poplitea, deeper and anteriorly to it n. tibialis, deeper and medially a. poplitea?

15. Which vessels are not branches of the popliteal artery:

+ a.a. recurrens tibiales anterior et posterior;

– a.a. genus superior medialis et lateralis;

– a.a. genus inferior medialis et lateralis;

– a. genus media?

16. Name the symptoms of common peroneal nerve injuries:

+ impossible dorsal flexion and turn of the foot outwards, anesthesia of the external surface of the antichemion, pes equinus is observed;

– impossible plantar flexion and turn of the foot, anesthesia of the anteromedial surface of the anticnemion, pes calcaneus is observed;

– disorder of plantar flexion of the foot, sensibility on the posterior surface of the anticnemion, sole and toes, pes calcaneus;

– impossible knee extension, disorder of sensibility in the area of n. saphenus innervation?

17. Name the intraarticular ligaments of knee joint:

+ lig. cruciatum anterius et posterius, lig. transversum genus;

– lig. popliteum arcuatum, lig. popliteum obliquum;

– lig. collaterale fibulare, lig. collaterale tibiale;

– lig. transversum acetabuli and lig. capitis femoris?

18. Name the extraarticular ligament of knee joint:

+ lig. popliteum arcuatum, lig. popliteum obliquum, lig. collaterale fibulare, lig. collaterale tibiale;

– lig. transversum genus, lig. cruciatum anterius, lig. cruciatum posterius;

– decussate ligaments, plica synovialis infrapatellaris, lig. patellae, lig. transversum genus;

– menisci?

19. Name the ligaments that strengthen knee joint anteriorly:

+ lig. patellae, retinaculum patellae mediale et laterale;

– lig. collaterale tibiale, lig. cruciatum anterius;

– lig. meniscofemorale anterius, lig. collaterale fibulare;

– lig. popliteum arcuatum?

20. Name the author of extraarticular sparing resection of knee joint:

+ Kornev;

– Textor;

– Voyno-Yasenetsky;

– Payr?

21. Which access to joint is used in tuberculous gonitis:

+ Textor's;

– Kornev's;

– Payr's;

– Langenbeck's?

22. What divides the cavity of knee joint into upper and lower floors:

+ menisci;

– decussate ligaments;

– plica synovialis infrapatellaris;

– lig. transversum genus?

23. What divides the cavity of knee joint into anterior and posterior compartments:

+ decussate ligaments;
– menisci;
– plica synovialis infrapatellaris;
– lig. transversum genus?

24. What divides the cavity of knee joint into external and internal halves:

+ plica synovialis infrapatellaris;
– decussate ligaments;
– menisci;
– lig. transversum genus?

25. What incision is used for arthrotomy of knee joint:

+ Payr's;
– Textor's;
– Putti's;
– Langenbeck's?

26. Which incision is used in purulent lesion of knee joint:

+ Textor's;
– Payr's;
– Putti's;
– Langenbeck's?

27. How to perform arthrotomy of knee joint by Textor's incision:

+ the incision is made arcuetly from one epicondyle to another, with transection of proper patellar ligament;

– the incision is performed 5–6 cm above patella, pulling back 1–1.5 cm with transection of proper patellar ligament;

– the parapatellar incision is made 8–10 cm above the joint, patella is bent externally, the end of incision is 2 cm below tuberositas tibiae;

– s-like incision is made on the posterior surface of knee region?

28. Name the bones that form articulatio genus:

+ distal femoral epiphysis, proximal tibial epiphysis, patella;

– proximal tibial epiphysis, patella, caput fibulae;

– distal tibial epiphysis, distalis fibular epiphysis, trochlea tali;

– distal femoral epiphysis, proximal tibial epiphysis, caput fibulae?

29. Name the synovial bursas that can connect with the cavity of knee joint:

+ bursa suprapatellaris, bursa m. poplitei, bursa subtendinea m. gastrocnemii medialis, bursa m. semimembranosi;

– bursa subcutanea prepatellaris, bursa subcutanea infrapatellaris, bursa prepatellaris subaponeurotica;

– bursa subfascialis prepatellaris, bursa subtendinea prepatellaris;

– bursa suprapatellaris, bursa infrapatellaris profunda?

30. How many synovial recess does the capsule of knee joint have:

+ 9;

– 13;

– 12;

– 4?

31. Where can the pus spread from the deep tissue of popliteal fossa:

+ canalis adductorius, posterior compartment of thigh and anticnemion;

– canalis adductorius, anterior compartment of anticnemion;

– canalis obturatorius, anterior compartment of the thigh and anticnemion;

– canalis inguinalis, canalis musculoperoneus superior?

32. What is located in the subcutaneous tissue of the anterior region of the anticnemion:

+ r. cutanei cruris mediales, r. cutanei (r. anterior n. obturatorius), v. saphena magna, n. saphenus, n. peroneus superficialis, n. cutaneus surae lateralis;

– n. peroneus profundus, v. saphena parva, bursa subcutanea prepatellaris, bursa infrapatellaris profunda;

– r. descendens a. circumflexa femoris lateralis, a.a. genus superiores et inferiores medialis et lateralis, r.r. articulares a. genus descendens, a. recurrens tibialis anterior;

– v. saphena magna et v. saphena parva, n. saphenus, r. anterior n. obturatorius, n.n. cutanei surae medialis et n.n. cutanei surae lateralis, n. suralis, n. cutaneus femoris posterior?

33. Which arteries form rete patellare:

+ r. descendens a. circumflexae femoris lateralis, a.a. genus superiores et inferiores medialis et lateralis, r.r. articulares a. genus descendens, a. recurrens tibialis anterior;

– a. circumflexa femoris medialis, a. circumflexa femoris lateralis, a. obturatoria;

– a. genus superior medialis, a. genus superior lateralis, a. genus inferior medialis, a. genus inferior lateralis, a. genus media, a. recurrens tibialis posterior;

– a.a. pudendae externae, a. circumflexa ilium superficialis, a. epigastrica superficialis?

34. What is lateral osseous-fibrous crural sheath bounded by:

+ anterior, posterior intermuscular septum, fibulae, fascia cruris;

– medial, lateral intermuscular septum, tibiae, fascia cruris;

– anterior, medial intermuscular septum, talus, membrana interossea;

– lateral, posterior intermuscular septum, fibulae, fascia cruris?

35. What is located in the lateral osseous-fibrous crural sheath:

+ m. peroneus longus, m. peroneus brevis, n. peroneus communis;

– m. tibialis anterior, m. extensor digitorum longus, m. extensor hallucis longus, a.et v.v. tibiales anteriores, n. peroneus profundus;

– m. tibialis anterior, m. extensor digitorum longus, v. saphena magna;

– membrana interossea cruris, m. peroneus brevis, a. et v.v. tibialis anterior?

36. What is canalis musculoperoneus superior formed by:

+ heads of m. peroneus longus, neck of fibula;

– heads of m. gastrocnemius, head of fibula;

– m. flexor hallucis longus, margo anterior tibiae;

– m. tibialis posterior, m. tibialis anterior, m. plantaris?

37. What is located in the anterior osseous-fibrous crural sheath:

+ m. tibialis anterior, m. extensor digitorum longus, m. extensor hallucis longus, a. et v.v. tibiales anteriores, n. peroneus profundus;

– m. peroneus longus, m. peroneus brevis, n. peroneus communis;

– m. gastrocnemius, m. soleus, m. flexor digitorum longus, m. flexor hallucis longus, a.et v.v. tibialis posteriores, n. tibialis;

– m. tibialis anterior, m. extensor digitorum longus, n. peroneus superficialis, canalis musculoperoneus superior, v. popliteal?

38. Between which muscles is the anterior tibial neurovascular fascicle in the upper third of anticnemion located:

+ m. tibialis anterior and m. extensor digitorum longus;

– m. tibialis anterior and m. extensor hallucis longus;

– m. tibialis anterior and m. flexor hallucis longus;

– m. tibialis anterior and m. flexor digitorum longus?

39. Between which muscles is the anterior tibial neurovascular fascicle in the lower third of anticnemion located;

+ m. tibialis anterior and m. extensor hallucis longus;

– m. tibialis anterior and m. extensor digitorum longus;

– m. tibialis anterior and m. flexor digitorum longus;

– m. tibialis anterior and m. flexor hallucis longus?

40. Name the projecting line of a. tibialis anterior:

+ from the middle of distance between tuberositas tibiae and head of the fibula to the middle of interosseous line;

– from 1 cm posteriorly from the medial edge of tibia to the middle of distance between the medial bone and heel tendon;

– from the point located in the middle of distance between tuberositas tibiae and head of the fibula till medial ankle;

– from the medial epicondyle of tibia to the middle of interosseous line?

41. What is located in the subcutaneous tissue of posterior region of the anticnemion:

+ v. saphena magna et v. saphena parva, n. saphenus, r. anterior n. obturatorius, n.n. cutanei surae medialis et n.n. cutanei surae lateralis, n. suralis, n. cutaneus femoris posterior;

– r. cutanei cruris medialis, r. cutanei (r. anterior n. obturatorius), v. saphena magna, n. saphenus, n. peroneus superficialis, n. cutaneus surae lateralis;

– r. descendens a. circumflexa femoris lateralis, a.a. genus superiores et inferiores medialis et lateralis, r.r. articulares a. genus descendens, a. recurrens tibialis anterior;

– n. saphenus, r. anterior n. obturatorius, n. cutaneus femoris posterior, n. cutaneus femoris lateralis, n. cutaneus surae lateralis?

42. What is located in the superficial compartment of the posterior region of the anticnemion:

+ n. cutaneus surae medialis, n. cutaneus surae lateralis, m. gastrocnemius, m. plantaris, m. soleus;

– m. tibialis posterior, v. saphena parva, v. saphena magna;

– m. tibialis posterior, m. flexor digitorum longus, m. flexor hallucis longus, a. tibialis posterior, v.v. tibialis posterior, n. tibialis;

– m. tibialis anterior, m. extensor digitorum longus, m. extensor hallucis longus, a. et v.v. tibiales anteriores, n. peroneus profundus?

43. What is located in the anterior deep osseous compartment of the posterior region of the anticnemion:

+ m. tibialis posterior, m. flexor digitorum longus, m. flexor hallucis longus, a. tibialis posterior, v.v. tibiales posteriores, n. tibialis;

– n. cutaneus surae medialis, n. cutaneus surae lateralis, m. gastrocnemius, m. plantaris, m. soleus, n. peroneus communis;

– v. saphena magna et v. saphena parva, n. saphenus, r. anterior n. obturatorius, n.n. cutanei surae medialis et n.n. cutanei surae lateralis;

– m. tibialis anterior, m. extensor digitorum longus, m. extensor hallucis longus, a. et v.v. tibiales anteriores, n. peroneus profundus?

44. What is cruropopliteal Gruber's canal bounded anteriorly by:

+ m. tibialis posterior;

– m. tibialis anterior;

– deep layer of crural fascia and m. soleus;
– m. popliteus?

45. What is cruropopliteal canal bounded posteriorly by:
+ deep layer of crural fascia and m. soleus;
– m. flexor hallucis longus;
– m. flexor digitorum longus;
– m. plantaris?

46. What is cruropopliteal canal bounded laterally by:
+ m. flexor hallucis longus;
– m. flexor digitorum longus;
– m. peroneus longus;
– m. peroneus brevis?

47. What is cruropopliteal canal bounded medially by:
+ m. flexor digitorum longus;
– m. flexor hallucis longus;
– tibia;
– m. tibialis posterior?

48. What is the superior entrance foramen of Gruber's canal bounded anteriorly by?
+ m. popliteus;
– arcus tendineus m. solei;
– m. tibialis posterior;
– m. tibialis anterior?

49. What is the superior entrance foramen of Gruber's canal bounded posteriorly by:
+ arcus tendineus m. solei;
– m. flexor digitorum longus;
– m. flexor hallucis longus;
– m. popliteus?

50. What enters Gruber's canal:
+ n. tibialis, a. poplitea;
– n. peroneus communis;
– a. tibialis posterior, a. tibialis anterior;
– n. peroneus profundus?

51. What passes through the anterior foramen of Gruber's canal:
+ a. et v.v. tibiales anteriores;
– n. peroneus profundus;
– a. et v.v. tibiales posteriores;
– n. tibialis?

52. What is the inferior foramen of Gruber's canal bounded by:
+ m. tibialis posterior, heel tendon;
– m. flexor digitorum longus;
– m. flexor hallucis longus;
– m. soleus?

53. Name the projecting line of the a. tibialis posterior:
+ from 1 cm posteriorly from the medial edge of tibia to the middle of distance between the medial bone and heel tendon:
– from 1 cm posteriorly from the middle of fossa poplitea to the middle of interosseous line;
– from the middle of fossa poplitea the medial bone;
– from the middle of distance between tuberositas tibiae and the head of fibula to the middle of interosseous line?

54. What is observed in the damage of n. tibialis:
+ plantar flexion of foot, sensibility on the posterior surface of the anticnemion, sole and toes are disordered, pes calcaneus is observed:

– impossible dorsal flexion and turn of the foot outwards, anesthesia of the external surface of the anticnemion, pes equinus is observed;

– impossible plantar flexion and turn of the foot, anesthesia of the anteromedial surface of the anticnemion, pes calcaneus is observed;

– impossible extension of the anticnemion, disorder of sensibility in the region of n. saphenus innervation?

55. What is canalis musculoperoneus inferior bounded posteriorly by:

+ m. flexor hallucis longus;
– m. tibialis posterior;
– m. flexor digitorum longus;
– fibula?

56. What is canalis musculoperoneus inferior bounded anteriorly by:

+ m. tibialis posterior;
– m. flexor hallucis longus;
– m. flexor digitorum longus;
– fibula?

57. What is canalis musculoperoneus inferior bounded externally by:

+ fibula;
– m. peroneus longus;
– m. peroneus brevis;
– m. tibialis posterior?

58. What passes in canalis musculoperoneus inferior:

+ a. peronea;
– a. genus descendens;
– n. saphenus;
– n. peroneus communis?

59. What is located in the subcutaneous tissue in the region of medial bone:

+ r.r. calcanei a. tibialis posterior, r. malleolares a. tibialis posterior, v. saphena magna, n. saphenus, r.r. calcanei n. tibialis;

– n. suralis, n. peroneus superficialis, v. saphena parva;

– v. saphena magna et v. saphena parva, n. saphenus, r. anterior n. obturatorius, n.n. cutanei surae medialis et lateralis, n. suralis, n. cutaneus femoris posterior;

– n. cutaneus surae medialis, n. cutaneus surae lateralis, m. gastrocnemius, m. plantaris, m. soleus?

60. What is bone canal bounded by:

+ heel bone, medial ankle, retinaculum m. m. flexorum;

– tibia, heel tendon, m. abductor hallucis;

– fibula, tendon of m. flexor hallucis longus, m. tibialis posterior;

– heel bone, tendon of m. tibialis posterior, m. flexor digitorum longus?

61. What passes through the bone canal anteroposteriorly:

+ tendon of m. tibialis posterior, m. flexor digitorum longus, vasa tibialis posterior, n. tibialis, tendon of m. flexor hallucis longus;

– tendon of m. flexor digitorum longus, m. tibialis posterior, m. flexor hallucis longus and mostly from the back a. et v. tibialis posterior and n. tibialis;

– a. et v. tibialis posterior, posteriorly from them tendons of m. tibialis posterior, m. flexor digitorum longus and m. flexor hallucis longus;

– tendon of m. flexor hallucis longus, m. flexor digitorum longus, m. tibialis posterior and posteriorly from them a. et v. tibialis posterior and n. tibialis?

62. What is located in the medial compartment of the sole:

+ m. abductor hallucis, m. flexor hallucis brevis;

– m. adductor hallucis, a. et v. plantaris medialis;
– m. flexor digitorum brevis, n. peroneus profundus;
– m. flexor digitorum longus, m. tibialis posterior?

63. What is located in the lateral compartment of the sole:
+ m. abductor digiti minimi, m. flexor digiti minimi brevis;
– m. quadratus plantae, m. flexor digitorum brevis;
– m. abductor hallucis, m. flexor hallucis brevis;
– m. abductor digiti minimi, m.m. lumbricales?

64. What is middle compartment of the sole bounded laterally by:
+ medial and lateral intermuscular septum;
– first and third instep bones;
– m. quadratus plantae and m.m. lumbricales;
– superior and inferior intermuscular septum?

65. What is middle compartment of the sole bounded inferiorly by:
+ middle part of aponeurosis;
– plantar interosseous fascia;
– lig. plantare longum;
– m.m. interossei plantares?

66. What is middle compartment of the sole bounded superiorly by:
+ plantar interosseous fascia;
– middle part of aponeurosis;
– m. quadratus plantae;
– m.m. lumbricales?

67. What is located in the middle first layer of the sole above aponeurosis:
+ m. flexor digitorum brevis;
– m. flexor digitorum longus;

– m. quadratus plantae;
– m. adductor hallucis?

68. What is located in the middle compartment of the sole in the second layer:
+ tendon of m. flexor digitorum longus, m. quadratus plantae, m.m. lumbricales;
– tendon of m. adductor hallucis, m. abductor hallucis, m.m. interossei plantares;
– m. flexor digitorum brevis;
– m.m. interossei plantares, m. adductor hallucis?

69. What is located in the middle compartment of the sole in the third layer:
+ m.m. interossei plantares, m. adductor hallucis;
– m. abductor hallucis;
– tendon of m. flexor digitorum longus, m. quadratus plantae, m.m. lumbricales;
– m. flexor digitorum brevis?

70. What is subaponeurotic tissue space of the sole bounded by:
+ plantar aponeurosis, m. flexor digitorum brevis;
– deep fascia of the sole, m. quadratus plantae;
– plantar interosseous fascia, m. lumbricales;
– m. flexor digitorum longus, m. adductor hallucis?

71. What is the superficial fascial cellular space of the sole bounded by:
+ m. flexor digitorum brevis, m. flexor digitorum longus, m. quadratus plantae;
– m. adductor hallucis, m. abductor hallucis;
– plantar aponeurosis, m. flexor digitorum brevis;
– tendon of m. flexor digitorum longus, m. quadratus plantae, m.m. lumbricales?

72. What is heel canal bounded by:
+ heel bone, m. abductor hallucis;
– medial ankle, m. adductor hallucis;
– retinaculum flexorum;
– plantar aponeurosis, m. flexor digitorum brevis?

73. What passes through the heel canal:
+ a. et v. plantaris medialis, a. et v. plantaris lateralis;
– a. dorsalis pedis, ramus plantaris profundus;
– arcus plantaris, a. et v. plantaris medialis;
– m. flexor digitorum brevis, n. peroneus profundus?

74. What is the deep cellular space of the sole bounded by:
+ plantar interosseous fascia, deep fascia of the sole, medial compartment, lateral compartment;
– heel bone, m. abductor hallucis, medial ankle, m. adductor hallucis, retinaculum flexorum;
– plantar aponeurosis, m. flexor digitorum brevis;
– tendon of m. flexor digitorum longus, m. quadratus plantae, m.m. lumbricales?

75. Where is the deep cellular space of the sole located:
+ plantar canal;
– bone canal;
– medial compartment;
– lateral compartment?

76. The projection of the medial and lateral plantar neurovascular fascicle is defined with the help of:
+ Delorme's lines;
– Roser – Nelaton's lines;
– Lesshaft's lines;
– Quain's lines?

77. Name the content of the plantar canal:

+ tendon of m. flexor digitorum longus, m. quadratus plantae, vasa plantaria lateralia, n. plantaris lateralis, vasa plantaria medialia, n. plantaris medialis;

– tendon of m. adductor hallucis, m. abductor hallucis, m.m. interossei plantares, m. flexor digitorum brevis, vasa tibialia posteriora, n. tibialis;

– tendon of m. flexor digitorum longus, m. quadratus plantae, m.m. lumbricales;

– m.m. interossei plantares, m. adductor hallucis?

Test questions and answers for practical lesson № 3

1. What is supraspinous fibro-osseous compartment formed by:

+ deep layer of proper fascia, scapular edges, spina scapulae, fossa supraspinata;

– superficial layer of proper fascia, scapular edges, spina scapulae, fossa infraspinata;

– by deep layer of proper fascia, thorax, m. serratus anterior;

– by superficial layer of proper fascia, m. subscapularis, m. serratus anterior?

2. What is located in the supraspinous fibro-osseous compartment of scapular region:

+ m. supraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis;

– m. infraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli;

– m. subscapularis, branches of a. subscapularis, n. subscapularis;

– m. teres minor, m. teres major, a. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli?

3. What is infraspinous fibro-osseous compartment formed by:

+ deep layer of proper fascia, scapular edges, spina scapulae, fossa infraspinata;

– superficial layer of proper fascia, scapular edges, spina scapulae, fossa infraspinata;

– superficial layer of proper fascia, thorax, m. serratus anterior;

– deep layer of proper fascia, m. subscapularis, m. serratus anterior?

4. What is located in the infraspinous fibro-osseous compartment of scapular region:

+ m. infraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli;

– m. supraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis;

– m. subscapularis, branches of a. subscapularis, n. subscapularis;

– m. teres minor, m. teres major, a. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli?

5. Name the possible ways of pus spreading from supraspinous fibro-osseous compartment of scapula:

+ into cellular space of lateral triangle of the neck, infraspinous fibro-osseous compartment, subdeltoid cellular space;

– into cellular tissue of the inguinal fossa, anterior prescapular gap, posterior prescapular gap;

– into supraspinous fibro-osseous compartment, cellular tissue of the inguinal fossa, subdeltoid cellular space;

– into axillary fossa, infrascapular fibro-osseous compartment, infraspinous and supraspinous fossae, posterior and anterior arm compartment, subpectoral space?

6. Name the possible ways of pus spreading from infraspinous fibro-osseous compartment of scapula:

+ into supraspinous fibro-osseous compartment, cellular tissue of the inguinal fossa, subdeltoid cellular space;

– into subpectoral space, anterior arm compartment, posterior arm compartmen;

– into cellular space of lateral triangle of the neck, into infraspinous fibro-osseous compartment, into subdeltoid cellular space;

– into inguinal fossa, infrascapular fibro-osseous compartment, infraspinous and supraspinous fossae, posterior and anterior arm compartment, subpectoral space?

7. What is located in the infrascapular fibro-osseous compartment:

+ m. subscapularis, branches of a. subscapularis, n. subscapularis;

– m. supraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis;

– m. infraspinatus, a. suprascapularis, v. suprascapularis, n. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli;

– m. teres minor, m. teres major, a. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli?

8. What is the anterior prescapular gap bounded by:

+ thorax and m. serratus anterior;

– m. subscapularis and m. serratus anterior;

– m. latissimus dorsi and m. trapezius;

– m. teres minor and m. teres major and thorax?

9. What is the posterior prescapular gap bounded by:

+ m. subscapularis and m. serratus anterior;

– thorax and m. serratus anterior;

– m. latissimus dorsi and m. trapezius;

– m. teres minor and m. teres major?

10. What incisions are performed for drainage of anterior and posterior prescapular gap:

+ paravertebral incision along the medial edge of scapula, horizontal incision of Sozon-Yaroshevich;

– incision along the lateral edge of scapula, along the anterior and posterior edge of m. deltoideus;

– Boytchev – Chaklin's incision, Langenback's incision;

– posterior medistinotomy, intercostal thoracotomy?

11. Which arteries form scapular anastomosis:

+ a. suprascapularis, a. circumflexa scapulae, r. profundus a. transversae colli;

– a. subscapularis, a. axillaris, a. thoracodorsalis, a. thoracica lateralis;

– truncus costocervicalis, a. thoracoacromialis, a. cervicalis dorsalis;

– a. axillaris, a. circumflexa humeri posterior, r. profundus a. transversae colli?

12. What passes through the subcutaneous cellular tissue of deltoid region:

+ v. cephalica, n.n. supraclaviculares, n. cutaneus brachii lateralis superior, n. cutaneus brachii medialis;

– v. basilica, n. cutaneus brachii lateralis inferior, n. cutaneus brachii posterior, n. axillaris;

– v. jugularis externa, n. accessorius, n.n. supraclaviculares, a. et v. cervicalis superficialis;

– a. et v. suprascapularis, a. et v. subclavia, plexus brachialis?

13. What is subdeltoid cellular space bounded by:

+ m. deltoideus, shoulder joint capsule;

– m. teres minor and m. teres major;

– m. subscapularis and m. serratus anterior;

– thorax and m. serratus anterior?

14. What is located in cellular tissue of subdeltoid space:

+ tendons of muscles, synovial bursas, a. et v. circumflexa humeri anterior et posterior, n. axillaris;

– v. cephalica, n.n. supraclaviculares, n. cutaneus brachii lateralis superior, n. cutaneus brachii medialis;

– v. basilica, n. cutaneus brachii lateralis inferior, n. cutaneus brachii posterior, n. axillaris;

– bursa subdeltoidea, bursa subacromialis, bursa subtendinea m. subscapularis, intertubercular synovial sheath?

15. Which synovial bursas are located in the subteltoid space:

+ bursa subdeltoidea, bursa subacromialis, bursa subtendinea m. subscapularis, intertubercular synovial sheath;

– bursa suprapatellaris, bursa infrapatellaris profunda, bursa subcutanea prepatellaris, recessus subpopliteus;

– bursa ischiadica m. glutei maximi, bursa trochanterica, bursae intermusculares m.m. gluteorum, bursa m. piriformis;

– intertubercular synovial sheath, bursa subtendinea m. subscapularis, recessus axillaris?

16. Name the projection of neurovascular fascicle of subdeltoid space:

+ middle of the posterior edge of m. deltoideus;

– under acromion process;

– under coracoid process;

– middle of the anterior edge of m. deltoideus?

17. What is observed in damage of n. axillaris:

+ atrophy of deltoid muscle, inability to lift the arm in the frontal area to horizontal level;

– atrophy of teres major muscle, inability to left the arm higher than horizontal level, anesthesia of inner region of the arm;

– inability to extend hand and fingers, drop hand, inability to abduct the thumb, hand looks like “seal foot”;

– inability to flex IV and V fingers, inability to adduct IV and V fingers, hand looks like “claw hand”, the fingers are extended in the proximal phalang?

18. Name the possible ways of pus spreading from the subdeltoid space:

+ into inguinal fossa, infrascapular fibro-osseous compartment, infraspinous and supraspinous fossae, posterior and anterior arm compartment, subpectoral space;

– into cellular space of the lateral triangle of the neck, infraspinous fibro-osseous compartment, subdeltoid cellular space;

– into cellular tissue of the inguinal fossa, anterior prescapular gap, posterior prescapular gap;

– into supraspinous fibro-osseous compartment, cellular tissue of the inguinal fossa, subdeltoid cellular space?

19. Which incisions are performed to expose phlegmons of subdeltoid space:

+ incision along the anterior and posterior edge of deltoid muscle;

– paravertebral incision along the medial edge of scapula;

– incision along the lateral edge of scapula;

– horizontal incision of Sozon-Yaroshevich?

20. Name the weak places of the shoulder joint capsule:

+ intertubercular synovial sheath, bursa subtendinea m. subscapularis, recessus axillaris;

– intertubercular synovial sheath, bursa subdeltoidea, bursa subacromialis;

– bursa suprapatellaris, bursa infrapatellaris profunda, bursa subcutanea prepatellaris, recessus subpopliteus;

– bursa ischiadica m. glutei maximi, bursa trochanterica, bursae intermusculares m.m. gluteorum, bursa m. piriformis?

21. Name the ligaments that strengthen shoulder joint:

+ lig. coracohumerale, lig. glenohumerale superius, lig. glenohumerale inferius, lig. glenohumerale medius;

– lig. transversum scapulae, lig. coracoacromiale, lig. acromioclaviculare, lig. coracoclaviculare;

– lig. collaterale radiale, lig. collaterale ulnare, lig. anulare radii, lig. quadratum;

– lig. glenohumerale superius, lig. glenohumerale inferius?

22. Which muscles strengthen shoulder joint anteriorly:

+ m. subscapularis, m. coracobrachialis, caput breve m. biceps brachii, m. pectoralis major, m. deltoideus;

– m. supraspinatus, m. infraspinatus, m. teres minor;

– m. deltoideus, m. pectoralis major;

– m. teres major, m. latissimus dorsi, m. pectoralis major?

23. Which muscles strengthen shoulder joint posteriorly:

+ m. supraspinatus, m. infraspinatus, m. teres minor;

– m. subscapularis, m. coracobrachialis, caput breve m. biceps brachii, m. pectoralis major, m. deltoideus;

– m. deltoideus, m. pectoralis major;

– m. teres major, m. latissimus dorsi, m. pectoralis major?

24. Which muscle strengthens shoulder joint externally:

+ m. deltoideus;

– m. supraspinatus;

– m. subscapularis;

– m. teres major?

25. Which arteries supply shoulder joint with blood:

+ a. circumflexa humeri anterior, a. circumflexa humeri posterior, a. thoracoacromialis;

– a. thoracodorsalis, a. thoracica lateralis, a. axillaris, a. thoracoacromialis;

– a. thoracica suprema, a. thoracica lateralis, a. subscapularis, a. circumflexa humeri anterior et posterior;

– a. circumflexa scapulae, a. thoracodorsalis?

26. What is shoulder joint innervated by:

+ n. axillaris, n. suprascapularis;

– n. thoracodorsalis, n.n. supraclaviculares;

– n. cutaneus brachii lateralis superior, n. cutaneus brachii medialis;

– n. cutaneus brachii lateralis inferior, n. cutaneus brachii posterior?

27. Name the external marks of the needle puncture in shoulder joint puncture from the back:

+ under acromion, between the posterior edge of deltoid muscle and inferior edge of supraspinous muscle;

– under coracoid process of scapula, middle of the posterior edge of deltoid muscle and inferior edge of supraspinous muscle;

– along the inferior edge of clavicula;

– downwards from the acromion process?

28. Name the external marks of the needle puncture in shoulder joint puncture from the front:

+ coracoid process of scapula;

– under acromion, between the posterior edge of deltoid muscle and inferior edge of supraspinous muscle;

– downwards from the acromion process;

– middle of the anterior edge of deltoid muscle?

29. Name the external marks of the needle puncture in shoulder joint puncture from the side:

+ downwards from the acromion process;

– coracoid process of scapula;

– under deltoid muscle;

– towards greater tubercle of humeri?

30. Name the direction of malacotomy for arthrotomy of shoulder joint by Langenbeck:

+ from the acromion process, along the anterior edge of deltoid muscle, along sulcus deltoideopectoralis;

– from the coracoid process of scapula, along the external edge of deltoid muscle, along spina scapulae;

– from the acromion process, along the external surface of deltoid muscle, along the lateral edge of scapula;

– incision along the anterior and posterior edge of deltoid muscle?

31. Which muscles are split up by hooks in arthrotomy of shoulder joint by Langenbeck:

+ m. pectoralis major, m. deltoideus, caput breve et longum m. biceps brachii, m. coracobrachialis;

– m. teres major, m. latissimus dorsi, caput longum m. biceps brachii, m. coracobrachialis;

– m. pectoralis major, m. pectoralis minor, m. deltoideus, m. subscapularis, m. brachialis;

– m. pectoralis major, m. pectoralis minor?

32. Which compartment of shoulder joint capsule is cut in arthrotomy by Langenbeck:

+ intertubercular synovial sheath;

– in the region of anatomical neck of humerus;

– in the region of lesser tubercle of humeri;

– in the region of greater tubercle of humeri?

33. What is the anterior wall of cavum axillare formed by:

+ m. pectoralis major, m. pectoralis minor;

– m. subscapularis, m. latissimus dorsi, m. teres major;

– m. deltoideus, m. subscapularis;

– m. pectoralis major, m. deltoideus, caput breve et longum m. biceps brachii, m. coracobrachialis?

34. What is the posterior wall of cavum axillare formed by:

+ m. subscapularis, m. latissimus dorsi, m. teres major;

– m. pectoralis major, m. pectoralis minor;

– intertubercular synovial sheath;

– humerus, m. coracobrachialis, caput breve m. biceps brachii?

35. What is the medial wall of cavum axillare formed by:
+ lateral surface of thorax, m. serratus anterior;
– intertubercular synovial sheath;
– humerus, m. coracobrachialis, caput breve m. biceps brachii
– m. trapezius?

36. What is the lateral wall of cavum axillare formed by:
+ humerus, m. coracobrachialis, caput breve m. biceps brachii;
– m. pectoralis major, m. deltoideus, caput breve et longum m. biceps brachii, m. coracobrachialis;
– m. subscapularis, m. latissimus dorsi, m. teres major;
– caput longum m. biceps brachii?

37. Which triangles are projected to the anterior wall of axilla:
+ trigonum clavipectorale, trigonum pectorale, trigonum subpectorale;
– trigonum omoclaviculare, trigonum omotrapezoideum, trigonum omotracheale;
– trigonum submandibulare, Pirogov's triangle, scalenovertebral triangle;
– trigonum clavipectorale, Pirogov's triangle?

38. What is foramen quadrilaterum bounded superiorly by:
+ m. subscapularis, m. teres minor;
– m. teres major;
– m. latissimus dorsi;
– caput longum m. triceps brachii?

39. What is foramen quadrilaterum bounded inferiorly by:
+ m. teres major;
– m. subscapularis, m. teres minor;
– m. latissimus dorsi;

– caput longum m. triceps brachii?

40. What is foramen quadrilaterum bounded laterally by:
+ surgical neck of the humerus;
– caput longum m. triceps brachii;
– m. subscapularis, m. teres minor;
– m. brachialis?

41. What is foramen quadrilaterum bounded medially by:
+ caput longum m. triceps brachii;
– m. subscapularis;
– m. teres major;
– surgical neck of the humerus?

42. What is foramen trilaterum bounded superiorly by:
+ m. subscapularis, m. teres minor;
– m. teres major;
– m. latissimus dorsi;
– m. deltoideus?

43. What is foramen trilaterum bounded laterally by:
+ caput longum m. triceps brachii;
– surgical neck of the humerus;
– m. coracobrachialis;
– m. latissimus dorsi?

44. What is foramen trilaterum bounded inferiorly by:
+ m. teres major;
– m. teres minor;
– caput longum m. triceps brachii;
– m. pectoralis major?

45. Where is neurovascular bundle of axilla located:
+ near the inner edge of m. coracobrachialis;
– in sulcus bicipitalis medialis;

– between m. biceps brachii and m. brachialis;
– in sulcus bicipitalis lateralis?

46. What goes through the foramen trilaterum:
+ a. et v. circumflexa scapulae;
– n. axillaris;
– a. et v. circumflexa humeri posterior;
– a. et v. circumflexa humeri anterior?

47. What goes through the foramen quadrilaterum:
+ a. et v. circumflexa humeri posterior, n. axillaris;
– a. et v. circumflexa humeri anterior, n. axillaris;
– a. et v. circumflexa scapulae;
– n. cutaneus brachii medialis?

48. What is located in trigonum subpectorale lower, more medial and superficial from a. axillaris:
+ v. axillaris;
– n. medianus;
– n. cutaneus brachii medialis;
– n. ulnaris, n. cutaneus antebrachii medialis, n. cutaneus brachii medialis?

49. What is located in trigonum subpectorale more lateral from a. axillaris:
+ n. musculocutaneus;
– v. axillaris;
– n. radialis;
– n. ulnaris?

50. What is located in trigonum subpectorale anteriorly from a. axillaris:
+ n. medianus;
– v. axillaris;

– n. ulnaris, n. cutaneus antebrachii medialis, n. cutaneus brachii medialis;

– v. basilica?

51. What is located in trigonum subpectorale medially from a. axillaris:

+ n. ulnaris, n. cutaneus antebrachii medialis, n. cutaneus brachii medialis;

– v. axillaris;

– n. axillaris;

– n. musculocutaneus?

52. What is located in trigonum subpectorale posteriorly from a. axillaris:

+ n. axillaris, n. radialis;

– n. ulnaris, n. musculocutaneus;

– n. cutaneus antebrachii posterior;

– n. ulnaris, n. cutaneus antebrachii medialis, n. cutaneus brachii medialis?

53. What arteries branch off from a. axillaris to trigonum subpectorale:

+ a. circumflexa humeri anterior et posterior, a. subscapularis;

– a. thoracoacromialis, a. thoracica lateralis, a. circumflexa scapulae

– inferior thyroid artery, a. cervicalis ascendens, a. cervicalis superficialis, a. suprascapularis;

– a. thoracica interna, a. vertebralis, a. transversa colli?

54. Name the projecting line of a. axillaris:

+ along the anterior edge of hair growth, on the border between the anterior and middle third of the width of axilla:

– through the middle of the width of axilla;

– on the border between the middle and posterior third of the width of axilla;

– from the point located on the border between the anterior and middle third of the width of axilla, to the middle of antecubital fossa?

55. Where is the incision performed to expose a. axillaris:

+ 1 cm anteriorly from the projecting line, through the sheath of m. coracobrachialis;

– along the projecting line, between m. coracobrachialis and m. biceps brachii;

– in the middle of distance between m. pectoralis major and m. latissimus dorsi;

– posteriorly from the projecting line of a. axillaris?

56. Where is the incision performed phlegmon of axilla:

+ posteriorly from the projecting line of a. axillaris, in the middle of distance between m. pectoralis major and m. latissimus dorsi;

– along the projecting line of a. axillaris;

– in the middle of distance between m. pectoralis major and m. latissimus dorsi;

– 1 cm anteriorly from the projecting line, through the sheath of m. coracobrachialis?

57. Which incisions are performed to expese pyogenic abscesses in axilla by to Voyno-Yasenetsky:

+ supraclavicular, infraclavicular, axillar;

– from the acromion process, along the anterior edge of deltoid muscle, along sulcus deltoideopectoralis;

– from the coracoid process of scapula, along the posterior edge of deltoid muscle, along spina scapulae;

– along the anterior and posterior edge of deltoid muscle?

58. Which nerves branch off from the posterior bundle of the brachial plexus:

+ n. axillaris, n. radialis;

– n. ulnaris, n. cutaneus antebrachii medialis, n. cutaneus brachii medialis;

– n. musculocutaneus, part of n. medianus;

– n. cutaneus brachii medialis?

59. Which nerves branch off from the lateral bundle of the brachial plexus:

+ n. musculocutaneus, part of n. medianus;

– n. ulnaris, n. cutaneus brachii medialis, n. cutaneus antebrachii medialis, part of n. medianus;

– n. axillaris, n. radialis;

– n. radialis?

60. Which nerves branch off from the medial bundle of the brachial plexus:

+ n. ulnaris, n. cutaneus brachii medialis, n. cutaneus antebrachii medialis, part of n. medianus;

– n. musculocutaneus, part of n. medianus;

– n. radialis;

– n. axillaris?

61. Name the branches of a. axillaris:

+ a. thoracica suprema, a. thoracica lateralis, a. thoracoacromialis, a. subscapularis, a. circumflexa humeri anterior et posterior;

– a. circumflexa scapulae, a. thoracodorsalis;

– a. thoracoacromialis, a. thoracica lateralis, a. circumflexa scapulae;

– a. thyreoidea inferior, a. cervicalis ascendens, a. cervicalis superficialis, a. suprascapularis?

62. Which artery is important for development of collateral blood flow in occlusion of a. axillaris:

+ a. subscapularis;

– a. thoracoacromialis;

– a. circumflexa scapulae;
– a. thoracodorsalis?

63. Where is better to ligate a. axillaris:
+ above the origin of a. subscapularis;
– below the origin of a. subscapularis;
– above the origin of a. thoracodorsalis;
– above the origin of a. circumflexa scapulae?

Test questions and answers for practical lesson № 4

1. What is located in subcutaneous cellular tissue of the anterior part of the elbow:

+ v. basilica, n. cutaneus antebrachii medialis, n. intercostobrachialis, nodi lymphatici cubitales superficiales,

v. cephalica, n. cutaneus antebrachii lateralis, v. intermedia cubiti;

– v. cephalica, n.n. supraclaviculares, n. cutaneus brachii lateralis superior, n. cutaneus brachii medialis;

– v. basilica, n. cutaneus brachii lateralis inferior, n. cutaneus brachii posterior, n. axillaris;

– v. mediana antebrachii, v. basilica, n. cutaneus antebrachii medialis, v. cephalica, n. cutaneus antebrachii lateralis, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris?

2. What is located in the lateral compartment of the anterior part of the elbow:

+ m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, n. radialis, a. collateralis radialis, a. recurrens radialis, m. supinator;

– a. et v. radialis, v. cephalica, n. cutaneus antebrachii lateralis;

– m. pronator teres, m. flexor carpi radialis, m. flexor carpi ulnaris, m. palmaris longus, m. flexor digitorum superficialis, m. flexor digitorum profundus, a. et. v.v. brachiales, n. medianus;

– tendon of m. biceps brachii, m. brachialis?

3. What is located in the medial compartment of the anterior part of the elbow:

+ tendon of m. biceps brachii, m. brachialis;

– m. pronator teres, m. flexor carpi radialis, m. flexor carpi ulnaris, m. palmaris longus, m. flexor digitorum superficialis, m. flexor digitorum profundus, a. et. v.v. brachiales, n. medianus;

– m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, n. radialis, a. collateralis radialis, a. recurrens radialis, m. supinator

– a. et v. radialis, v. cephalica, n. cutaneus antebrachii lateralis?

4. What is located in the medial compartment of the anterior part of the elbow:

+ m. pronator teres, m. flexor carpi radialis, m. flexor carpi ulnaris, m. palmaris longus, m. flexor digitorum superficialis, m. flexor digitorum profundus, a. et. v.v. brachiales, n. medianus;

– m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, n. radialis, a. collateralis radialis, a. recurrens radialis, m. supinator;

– a. et v. radialis, v. cephalica, n. cutaneus antebrachii lateralis;

– tendon of m. biceps brachii, m. brachialis?

5. What is antecubital fossa bounded by:

+ m. brachioradialis et m. pronator teres;

– m. flexor carpi ulnaris et m. flexor carpi radialis;

– m. flexor digitorum superficialis et m. flexor digitorum profundus;

– m. extensor carpi radialis longus et brevis?

6. What is located in the subcutaneous cellular tissue of the antecubital fossa:

+ medial and lateral neurovascular bundle;

– a. brachialis;

– n. medianus;

– anterior and posterior neurovascular bundle?

7. Name the elements of the medial neurovascular bundle of antecubital fossa:

+ a. brachialis, v.v. brachiales, n. medianus;

– n. ulnaris, a. collateralis ulnaris superior, a. collateralis ulnaris inferior;

– n. radialis, a. collateralis radialis, a. recurrens radialis;

– n. medianus, a. et v. comitans n. mediani?

8. Name the elements of the lateral neurovascular bundle of antecubital fossa:

+ n. radialis, a. collateralis radialis, a. recurrens radialis;

– a. radialis, v.v. radiales;

– a. brachialis, v.v. brachiales, n. medianus;

– n. ulnaris, a. collateralis ulnaris superior, a. collateralis ulnaris inferior?

9. Which arteries create anastomosis in sulcus cubitalis anterior medialis and take part in creation of rete articulare cubiti:

+ a. collateralis ulnaris inferior and ramus anterior a. recurrens ulnaris;

– a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris;

– a. collateralis media and a. interossea recurrens;

– a. collateralis radialis and a. recurrens radialis?

10. Which arteries create anastomosis in sulcus cubitalis anterior lateralis:

+ a. collateralis radialis and a. recurrens radialis;

– a. collateralis media and a. interossea recurrens;

– a. collateralis ulnaris superior and ramus anterior a. recurrens ulnaris;

– a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris?

11. Which arteries create anastomosis in sulcus cubitalis posterior medialis:

+ a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris;

– a. collateralis ulnaris inferior and ramus anterior a. recurrens ulnaris;

– a. collateralis media and a. interossea recurrens;

– a. collateralis radialis and a. recurrens radialis?

12. Which arteries create anastomosis in sulcus cubitalis posterior lateralis:

+ a. collateralis media and a. interossea recurrens;

– a. collateralis radialis and a. recurrens radialis;

– a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris;

– a. collateralis radialis and a. recurrens radialis?

13. What is located in the subcutaneous cellular tissue of the anterior part of the forearm:

+ v. mediana antebrachii, v. basilica, n. cutaneus antebrachii medialis et lateralis, v. cephalica, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris;

– v. basilica, n. cutaneus antebrachii medialis, n. intercostobrachialis, nodi lymphatici cubitales superficiales,

v. cephalica, n. cutaneus antebrachii lateralis, v. intermedia cubiti;

– m. brachioradialis, n. radialis, a. collateralis radialis, a. recurrens radialis, a. et v. radialis, v. cephalica, n. cutaneus antebrachii lateralis;

– n. cutaneus antebrachii posterior, lateralis et medialis, n. cutaneus brachii posterior, r. superficialis n. radialis, r. dorsalis n. ulnaris?

14. What is located in the lateral fibro-osseous compartment of the anterior part of the forearm:

+ m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, a. radialis, v. v. radiales, r. superficialis n. radialis;

– n. radialis;

– r. profundus n. radialis;

– v. mediana antebrachii, v. basilica, n. cutaneus antebrachii medialis, v. cephalica, n. cutaneus antebrachii lateralis, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris?

15. What is radial sulcus formed by:

+ m. brachioradialis, m. pronator teres, m. flexor carpi radialis;

– m. flexor digitorum superficialis, m. palmaris longus;

– m. flexor carpi ulnaris et m. flexor carpi radialis;

– m. flexor digitorum superficialis et m. flexor digitorum profundus?

16. Name the projecting line of the radial artery:

+ along the line that passes from the middle of antecubital fossa to pulse point;

– along the line that passes from the middle of antecubital fossa to styloid process of radius;

– from the medial epicondyle to styloid process of radius;

– from the middle of antecubital fossa to the middle of radiocarpal fold?

17. What happens if the radial nerve is damaged:

+ inability to extend the hand and fingers, drop hand, inability to abduct of the thumb, the hand looks like “seal foot”;

– atrophia of deltoid muscle, inability to lift the arm in the frontal region to horizontal level, anesthesia of the external part of the arm;

– inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, the hand looks like “monkey hand”;

– inability to crook IV and V fingers, inability to adduct IV and V fingers, hand looks like “claw hand”, the fingers are sharply extended in the main phalanges and the rest are flexed?

18. Name the first layer of muscles of the anterior compartment of the forearm:

+ m. pronator teres, m. flexor carpi radialis, m. palmaris longus, m. flexor carpi ulnaris;

– m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, m. flexor digitorum superficialis;

– m. flexor digitorum profundus, m. flexor pollicis longus;

– m. flexor digitorum superficialis?

19. Name the second layer of muscles of the anterior compartment of the forearm:

+ m. flexor digitorum superficialis;

– m. flexor digitorum profundus, m. flexor pollicis longus, m. pronator teres;

– m. pronator teres, m. flexor carpi radialis, m. palmaris longus, m. flexor carpi ulnaris;

– m. brachioradialis, m. extensor carpi radialis longus, m. extensor carpi radialis brevis, m. flexor digitorum superficialis?

20. Name the third layer of muscles of the anterior compartment of the forearm:

+ m. flexor digitorum profundus, m. flexor pollicis longus;

– m. flexor digitorum superficialis;

– m. pronator quadratus;

– m. palmaris longus?

21. Name the fourth layer of muscles of the anterior compartment of the forearm:

+ m. pronator quadratus;

– m. flexor digitorum profundus;

– m. palmaris longus;

– m. flexor pollicis longus?

22. Name the neurovascular bundle of anterior fibro-osseous compartment of the forearm:

+ median, ulnar, anterior interosseous;
– radial, ulnar, medial interosseous;
– n. medianus, a. et v. comitans n. mediani;
– a. interossea anterior, v.v. interosseae anteriores, n. interosseus anterior?

23. What does the median neurovascular bundle of the forearm consist of:
+ n. medianus, a. et v. comitans n. mediani;
– n. radialis, a. et v. radialis;
– n. ulnaris, a. et v. ulnaris;
– a. interossea anterior, v.v. interosseae anteriores, n. interosseus anterior?

24. What does the anterior interosseous neurovascular bundle of the forearm consist of:
+ a. interossea anterior, v.v. interosseae anteriores, n. interosseus anterior;
– n. medianus, a. et v. comitans n. mediani;
– a. brachialis, v.v. brachiales, n. medianus;
– n. ulnaris, a. collateralis ulnaris superior, a. collateralis ulnaris inferior?

25. The median nerve of the middle third of the forearm is located between:
+ m. flexor digitorum superficialis, m. flexor digitorum profundus et m. flexor pollicis longus;
– m. flexor carpi radialis et m. brachioradialis;
– m. flexor carpi ulnaris, m. flexor digitorum superficialis;
– m. flexor carpi radialis, m. flexor pollicis longus?

26. The median nerve of the lower third of the forearm is located between:
+ m. flexor carpi radialis et m. flexor digitorum superficialis;
– m. flexor digitorum profundus et m. flexor carpi ulnaris;

– m. flexor carpi ulnaris, m. flexor digitorum superficialis;

– m. palmaris longus, m. flexor digitorum superficialis?

27. What happens if the median nerve is damaged:

+ inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, hand looks like "monkey hand";

– inability to extend the hand and fingers, drop hand, inability to abduct the thumb, hand looks like "seal foot";

– atrophia of deltoid muscle, inability to lift the arm in the frontal area to horizontal level, anesthesia of external part of the arm;

– inability to crook IV and V fingers, inability to adduct of IV and V fingers, hand looks like "claw hand", fingers are sharply extended in the main phalanges and the rest are flexed?

28. Name the projecting line of the median nerve:

+ from the middle of antecubital fossa to the middle of radiocarpal fold;

– along the line that passes from the middle of antecubital fossa to pulse point;

– along the line that passes from the middle of antecubital fossa to styloid process of radius;

– from the medial epicondyle to pisiform bone?

29. The ulnar neurovascular bundle is located between:

+ m. flexor carpi ulnaris, m. flexor digitorum superficialis;

– m. flexor carpi radialis, m. flexor pollicis longus;

– m. palmaris longus, m. flexor digitorum superficialis

– m. flexor digitorum superficialis, m. flexor digitorum profundus et m. flexor pollicis longus?

30. What happens if ulnar nerve is damaged:

+ inability to crook IV and V fingers, inability to adduct IV and V fingers, hand looks like "claw hand", fingers are sharply extended in main phalanges and the rest are flexed;

– inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, hand looks like "monkey hand";

– inability to extend the hand and fingers, drop hand, inability to abduct the thumb, hand looks like "seal foot";

– atrophia of deltoid muscle, inability to lift the arm in the frontal area to horizontal level, anesthesia of external part of the arm?

31. Name the projecting line of the ulnar artery:

+ from the medial epicondyle to pisiform bone;

– along the line that passes from the middle of antecubital fossa to pulse point;

– along the line that passes from the middle of antecubital fossa to styloid process of radius;

– from the middle of antecubital fossa to the middle of radiocarpal fold?

32. Between which muscles the tissue cellular space of Pirogov – Parona is located:

+ m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus;

– m. flexor digitorum superficialis, m. flexor carpi radialis;

– m. flexor carpi ulnaris, m. flexor digitorum superficialis;

– m. flexor digitorum superficialis, m. flexor digitorum profundus, m. palmaris longus?

33. What incision is performed to drain tissue space of Pirogov – Parona:

+ Kanavel's incision;

– Kocher's incision;

– Sokolov's incision;

– Langenbeck's incision?

34. What is located in the subcutaneous cellular tissue of the posterior part of the forearm:

+ n. cutaneus antebrachii posterior, lateralis et medialis, n. cutaneus brachii posterior, r. superficialis n. radialis, r. dorsalis n. ulnaris;

– v. mediana antebrachii, v. basilica, n. cutaneus antebrachii medialis et lateralis, v. cephalica, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris;

– v. basilica, n. cutaneus antebrachii medialis, n. intercostobrachialis, nodi lymphatici cubitales superficiales,

v. cephalica, n. cutaneus antebrachii lateralis, v. intermedia cubiti;

– m. brachioradialis n. radialis, a. collateralis radialis, a. recurrens radialis, a. et v. radialis, v. cephalica, n. cutaneus antebrachii lateralis?

35. Name the muscles of the superficial layer of the posterior part of the forearm:

+ m. extensor carpi ulnaris, m. extensor digiti minimi, m. extensor digitorum;

– m. supinator, m. abductor pollicis longus, m. extensor pollicis longus, m. extensor pollicis brevis, m. extensor indicis;

– m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus;

– m. flexor digitorum superficialis, m. flexor digitorum profundus, m. palmaris longus?

36. Name the muscles of the deep layer of the posterior part of the forearm:

+ m. supinator, m. abductor pollicis longus, m. extensor pollicis longus, m. extensor pollicis brevis, m. extensor indicis;

– m. extensor carpi ulnaris, m. extensor digiti minimi, m. extensor digitorum

– m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus;

– m. flexor digitorum superficialis, m. flexor digitorum profundus, m. palmaris longus?

37. What is located in the cellular tissue between the superficial and deep muscles of the posterior part of the forearm:

+ r. profundus n. radialis, a. interossea posterior, v.v. interosseae posteriores;

– r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris, a.a. digitales palmares propriae, n.n. digitales palmares propriae, m. palmaris brevis;

– tendon of m. flexor digitorum superficialis, m. flexor pollicis longus, n. medianus, a. comitans n. mediani;

– m. flexor carpi ulnaris, a. et v. ulnaris, r. palmaris n. ulnaris?

38. Name the point of needle puncture for blockade of the ulnar nerve in operations on hands:

+ in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris;

– in the intercarpal gap in horizontal direction drawn on dorsum of hand from I metacarpophalangeal articulation to ulnar edge of metacarpal;

– at the base of "anatomical snuffbox"?

39. Name the point of needle puncture for blockade of the radial nerve in operations on hands:

+ at the base of "anatomical snuffbox";

– in the intercarpal gap in horizontal direction drawn on dorsum of hand from I metacarpophalangeal articulation to ulnar edge of metacarpal;

– in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris?

40. Name the point of needle puncture for blockade of the median nerve in operations on hands:

+ in the point of intersection of the middle of distal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the area of interdigital folds;

– at the base of "anatomical snuffbox"?

41. Name articular surfaces of articulatio humeroulnaris:

+ trochlea humeri, incisura trochlearis ulnae;

– capitulum humeri, fovea capitis radii;

– circumferentia articularis radii, incisura radialis ulnae;

– zona orbicularis, retinaculum flexorum?

42. Name articular surfaces of articulatio humeroradialis:

+ capitulum humeri, fovea capitis radii;

– trochlea humeri, incisura trochlearis ulnae;

– circumferentia articularis radii, incisura radialis ulnae;

– zona orbicularis, retinaculum flexorum?

43. Name articular surfaces of articulatio radioulnaris proximalis:

+ circumferentia articularis radii, incisura radialis ulnae;

– capitulum humeri, fovea capitis radii;

– trochlea humeri, incisura trochlearis ulnae;

– zona orbicularis, retinaculum flexorum?

44. Name the ligaments that strengthen elbow joint:

+ lig. collaterale ulnare, lig. collaterale radiale, lig. anulare radii;

– zona orbicularis, retinaculum flexorum, lig. quadratum;

– lig. radiocarpeum dorsale, lig. collaterale carpi radiale, lig. collaterale carpi ulnare;

– lig. carpi radiatum, lig. radiocarpeum dorsale?

45. Name the nerves that can be damaged in comminuted fractures of elbow joint:

+ n. ulnaris, n. medianus, n. radialis;

– n. axillaris, n. musculocutaneus;

– n. cutaneus antebrachii medialis, n. intercostobrachialis, n. cutaneus antebrachii lateralis;

– n. cutaneus antebrachii lateralis, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris?

46. Where is the radial nerve divided into superficial and deep branches:

+ at the level of epicondylus lateralis humeri, at the level of head of radius;

– at the level of epicondylus medialis humeri, at the level of incisura trochlearis ulnae;

– in canalis supinatorius;

– in canalis humeromuscularis?

47. Which nerve can be damaged in radial neck fracture:

+ radial nerve;

– ulnar nerve;

– medial nerve;

– musculocutaneous nerve?

48. What happens if the radial nerve is damaged:

+ inability to extend the hand and fingers, drop hand, inability to abduct of the thumb, hand looks like “seal foot”;

– atrophia of deltoid muscle, inability to lift the arm in the frontal area to horizontal level, anesthesia of external region of the arm;

– inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, hand looks like “monkey hand”;

– inability to flex IV and V fingers, inability to adduct of IV and V fingers, hand looks like “claw hand”, the fingers are sharply extended in the main phalanges and the rest are flexed?

49. What happens if the median nerve is damaged:

+ inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, hand looks like “monkey hand”;

– inability to extend the hand and fingers, drop hand, inability to abduct of the thumb, hand looks like “seal foot”;

– atrophia of deltoid muscle, inability to lift the arm in the frontal area to horizontal level, anesthesia of external region of the arm;

– inability to crook IV and V fingers, inability to adduct of IV and V fingers, hand looks like “claw hand”, fingers are sharply extended in the main phalanges and the rest are flexed?

50. What happens if the ulnar nerve is damaged:

+ inability to crook IV and V fingers, inability to adduct IV and V fingers, hand looks like “claw hand”, fingers are sharply extended in the main phalanges and the rest are flexed;

– inability to crook I, II, III fingers into the fist, disorder of sensibility of palm surface of I–III fingers, hand looks like “monkey hand”;

– inability to extended the hand and fingers, drop hand, inability to abduct the thumb, hand looks like “seal foot”;

– atrophia of deltoid muscle, inability to lift the arm in the frontal area to horizontal level, anesthesia of external region of the arm?

51. Name the projecting line of the ulnar artery:

+ from the medial epicondyle to pisiform bone;

– along the line that passes from the middle of antecubital fossa to pulse point;

– along the line that passes from the middle of antecubital fossa to styloid process of radius;

– from the middle of antecubital fossa to the middle of radiocarpal fold?

52. Between which muscles the tissue cellular space of Pirogov – Parona is located:

+ m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus;

– m. flexor digitorum superficialis, m. flexor carpi radialis;

– m. flexor carpi ulnaris, m. flexor digitorum superficialis;

– m. flexor digitorum superficialis, m. flexor digitorum profundus, m. palmaris longus?

53. What incision is performed to drain tissue space of Pirogov – Parona:

+ Kanavel's incision;

– Kocher's incision;

– Sokolov's incision;

– Langenbeck's incision?

54. What is located in the subcutaneous cellular tissue of the palm surface of fingers and hand:

+ r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris, a.a. digitales palmares propriae, n.n. digitales palmares propriae, m. palmaris brevis;

– r. palmaris n. ulnaris, r. superficialis n. radialis, arcus palmaris superficialis, n. musculocutaneus;

– r. profundus n. radialis, a. interossea posterior, v.v. interosseae posteriores;

– tendon of m. flexor digitorum superficialis et profundus, m. flexor pollicis longus, n. medianus, a. comitans n. mediani?

55. What is located in the carpal canal:

+ tendon of m. flexor digitorum superficialis et profundus, m. flexor pollicis longus, n. medianus, a. comitans n. mediani;

– m. flexor carpi ulnaris, a. et v. ulnaris, r. palmaris n. ulnaris;

– r. profundus n. radialis, a. interossea posterior, v.v. interosseae posteriores;

– r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris, a.a. digitales palmares propriae, n.n. digitales palmares propriae, m. palmaris brevis?

56. What is located in Guyon's canal:

+ r. palmaris n. ulnaris, a. ulnaris, v. ulnaris;

– r. dorsalis n. ulnaris, v.v. radiales;

– tendon of m. flexor carpi ulnaris;

– tendon of m. flexor digitorum superficialis et profundum, m. flexor pollicis longus, n. medianus, a. comitans n. mediani?

57. What is located in canalis carpi radialis:

+ tendon of m. flexor carpi radialis;

– r. palmaris n. ulnaris, a. ulnaris, v. ulnaris;

– r. palmaris superficialis a. radialis;

– tendon of m. flexor digitorum superficialis et profundum, m. flexor pollicis longus, n. medianus, a. comitans n. mediani?

58. What is the middle compartment of the palm bounded anteriorly by:

+ palmar aponeurosis;

– palmar interosseous fascia;

– medial myoseptum;

– lateral myoseptum?

59. What is the middle compartment of the palm bounded posteriorly by:

+ interosseous fascia;

– palmar aponeurosis;

– medial myoseptum;
– lateral myoseptum?

60. What divides the middle compartment of the palm into superficial and deep parts:
+ tendons of fingers flexors;
– tendons of m. flexor pollicis longus;
– palmar aponeurosis;
– lateral myoseptum?

61. What is located in the cellular tissue of the superficial part of middle compartment of the palm:
+ arcus palmaris superficialis, n.n. digitales palmares communis;
– arcus palmaris profundus, n.n. digitales palmares proprii;
– tendons of fingers flexors;
– arcus palmaris profundus, r. profundus n. ulnaris?

62. What is located in the cellular tissue of the deep part of middle compartment of the palm:
+ arcus palmaris profundus, r. profundus n. ulnaris:
– arcus palmaris superficialis, n.n. digitales palmares communis;
– tendons of fingers flexors;
– arcus palmaris profundus, a.a. digitales palmares proprii?

63. Name the projecting line of the superficial palmar arch:
+1 cm higher than proximal fold of the palm;
– 1 cm lower than proximal fold of the palm;
– 1 cm higher than distal fold of the palm;
– 1 cm lower than distal fold of the palm?

64. What muscles of the thenar are innervated by the median nerve:

+ m. abductor pollicis brevis, m. flexor pollicis brevis (superficial head of the muscle), m. opponens pollicis;

– m. abductor pollicis longus, m. flexor pollicis brevis (deep head of the muscle), m. adductor pollicis;

– tendons of fingers flexors;

– m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus?

65. What muscles of the thenar are innervated by the ulnar nerve:

+ m. adductor pollicis, m. flexor pollicis brevis (deep head of the muscle);

– m. abductor pollicis brevis, m. flexor pollicis brevis (superficial head of the muscle), m. opponens pollicis;

– m. abductor digiti minimi, m. flexor digiti minimi brevis, m. opponens digiti minimi;

– m. flexor pollicis longus, m. flexor digitorum profundus, m. pronator quadratus?

66. Name the contents of the ulnar compartment of the palm:

+ m. abductor digiti minimi, m. flexor digiti minimi brevis, m. opponens digiti minimi;

– m. abductor pollicis brevis, m. flexor pollicis brevis, m. opponens pollicis, m. adductor pollicis, tendon of m. flexor pollicis longus;

– m. abductor pollicis brevis, m. flexor pollicis brevis (superficial head of the muscle), m. opponens pollicis;

– m. abductor pollicis longus, m. flexor pollicis brevis (deep head of the muscle), m. adductor pollicis?

67. Name the contents of the external compartment of the palm:

+ m. abductor pollicis brevis, m. flexor pollicis brevis, m. opponens pollicis, m. adductor pollicis, tendon of m. flexor pollicis longus;

– m. abductor digiti minimi, m. flexor digiti minimi brevis, m. opponens digiti minimi;

– m. abductor pollicis brevis, m. flexor pollicis brevis (superficial head of the muscle), m. opponens pollicis;

– m. abductor pollicis longus, m. flexor pollicis brevis (deep head of the muscle), m. adductor pollicis?

68. What incision is performed to drain phlegmons of the medial cellular space of the palm:

+ Kanavel's incision;

– Pirogov's incision;

– Langenbeck's incision;

– Toprover's incision?

69. Where is the incision performed in phlegmons of the medial cellular space of the palm:

+ in the middle of the palm between the heads of III and IV metacarpal bones, from the proximal fold of the palm to proximal phalanges;

– along the external edge of hypothenar between the heads of II and III metacarpal bones, along the proximal fold of the palm to distal proximal phalanges;

– along the distal fold of the palm and inner edge of the palm, 1cm higher of proximal fold of the palm;

– 1 cm higher than distal fold of the palm?

70. What creates the superficial palmar arch:

+ a. ulnaris and r. palmaris superficialis a. radialis;

– a. radialis and r. palmaris profundus a. ulnaris;

– a. collateralis ulnaris inferior and ramus anterior a. recurrens ulnaris;

– a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris?

71. What creates the deep palmar arch:

+ a. radialis and r. palmaris profundus a. ulnaris;

– a. ulnaris and r. palmaris superficialis a. radialis;

– a. collateralis ulnaris inferior and ramus anterior a. recurrens ulnaris;

– a. collateralis ulnaris superior and ramus posterior a. recurrens ulnaris?

72. Name the authors of conduction anesthesia in operations on fingers and hands:

+ Lukashevych, Oberst, Brown, Usoltseva;

– Pirogov, Kanavel, Sokolov;

– Farabeuf, Luppy, Malgen;

– Schede, Kocher, Klapp, Sokolov?

73. What passes in supinator canal:

+ deep branch of the radial nerve;

– superficial branch of the radial nerve;

– median nerve;

– dorsal branch of the ulnar nerve?

74. Name the point of needle puncture for blockade of the ulnar nerve in operations on hands:

+ in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris;

– in the intercarpal gap in horizontal direction drawn on dorsum of hand from I metacarpophalangeal articulation to ulnar edge of metacarpal;

– at the base of "anatomical snuffbox"?

75. Name the point of needle puncture for blockade of the radial nerve in operations on hands:

+ at the base of "anatomical snuffbox";

– in the intercarpal gap in horizontal direction drawn on dorsum of hand from I metacarpophalangeal articulation to ulnar edge of metacarpal;

– in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris?

76. Name the point of needle puncture for blockade of the median nerve in operations on hands:

+ in the point of intersection of the meddle of distal fold of the wrist with the ulnar edge of tendon of m. flexor carpi ulnaris;

– in the point of intersection of proximal fold of the wrist with the radial edge of tendon of m. flexor carpi ulnaris;

– in the area of interdigital folds;

– at the base of "anatomical snuffbox"?

77. Which layers are located in the synovial membrane of tendons of finger flexors:

+ epitendon, peritendineum;

– visceral, parietal;

– internal and external;

– mesotendinium?

78. What is located in the region of synovial membrane duplication:

+ mesotendinium;

– epitendon

– peritendineum

– perichondrium?

79. Name the length of synovial sheath for II, III, IV fingers of hand:

+ from the level of metacarpophalangeal articulations to the base of distal phalanges;

– from the level of proximal phalanges base to the top of distal phalanges;

– from the wrist joint to the top of distal phalanges;

– from the carpal canal to the base of distal phalanges?

80. Where can the pus spread in tenobursitis of V finger:

+ into the cellular space of Pirogov – Parona, radial bursa, radial wrist joint, palmar cellular space;

– to the lateral fibro-osseous compartment of the forearm, posterior compartment of the forearm;

– to the area of medial phalanx, to the area of proximal phalanx;

– to the cellular space of Pirogov – Parona, to the forearm, to hypothenar area?

81. Where are the incisions in tendovaginitis of II, III and IV fingers performed:

+ in the region of medial phalanx, proximal phalanx, along the anterolateral surface, above the head of metacarpal bone;

– in the region of nail phalanx, along the lateral surface;

– along the external edge of hypothenar;

– in the region of medial phalanx, proximal phalanx, along the anterolateral surface, on the forearm where Pirogov – Parona space is drained?

82. Where are the incisions in tendovaginitis of I and V fingers performed:

+ in the region of medial phalanx, proximal phalanx, along the anterolateral surface, on the forearm where Pirogov – Parona space is drained;

– in the region of medial phalanx, proximal phalanx, along the anterolateral surface, above the head of metacarpal bone;

– along the external edge of hypothenar;

– along the internal edge of thenar?

83. Which muscles bound “anatomical snuffbox” anteriorly and externally:

+ m. abductor pollicis longus, m. extensor pollicis brevis;

– m. extensor pollicis longus, m. extensor digitorum;

– m. extensor indicis;

– m. extensor pollicis longus?

84. Tendons of which muscle bound “anatomical snuffbox” posteriorly:

+ m. extensor pollicis longus;

– m. abductor pollicis longus;

– m. abductor pollicis longus, m. extensor pollicis brevis;

– m. extensor pollicis longus, m. extensor digitorum?

85. What is located in the subcutaneous tissue of the floor of “anatomical snuffbox”:

+ v. cephalica, n. cutaneus antebrachii lateralis, r. superficialis n. radialis;

– r. profundus n. radialis, r. palmaris n. ulnaris, r. dorsalis n. ulnaris, a. radialis;

– n. ulnaris, n. medianus, n. radialis;

– n. cutaneus antebrachii lateralis, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris?

86. Which artery enters “anatomical snuffbox”:

+ a. radialis;

– a. ulnaris;

– a. brachialis;

– a. axillaris?

87. What is located in the first fibrous canal of the posterior region of the wrist:

+ vagina tendinum mm. abductoris longi et extensoris pollicis brevis;

– tendons of mm. extensor carpi radialis longus et brevis;

– vagina tendinum mm. extensoris digitorum et extensoris indicis;

– vagina tendinis m. extensoris pollicis longi?

88. What is located in the second fibrous canal of the posterior region of the wrist:

+ tendons of mm. extensor carpi radialis longus et brevis surrounded by synovial sheaths;

– vagina tendinis m. extensoris pollicis longi;

– vagina tendinum mm. abductoris longi et extensoris pollicis brevis;

– vagina tendinum mm. extensoris digitorum?

89. What is located in the third fibrous canal of the posterior region of the wrist:

+ vagina tendinis m. extensoris pollicis longi;

– vagina synovialis of mm. extensor carpi radialis longus et brevis;

– vagina tendinum mm. extensoris digitorum et extensoris indicis;

– vagina tendinum mm. abductoris longi et extensoris pollicis brevis?

90. What is located in fourth fibrous canal of the posterior region of the wrist:

+ vagina tendinum mm.extensoris digitorum et extensoris indicis;

– vagina tendinis m. extensoris digiti minimi;

– vagina tendinis m. extensoris carpi ulnaris;

– vagina tendinis m. extensoris pollicis longi?

91. What is located in the fifth fibrous canal of the posterior region of the wrist:

+ vagina tendinis m. extensoris digiti minimi;

– vagina tendinum mm. extensoris digitorum et extensoris indicis;

– vagina tendinis m. extensoris carpi ulnaris;

– vagina tendinis m. extensoris pollicis longi?

92. What is located in the sixth fibrous canal of the posterior region of the wrist:

+ vagina tendinis m. extensoris carpi ulnaris;

– vagina tendinis m. extensoris digiti minimi;

– vagina tendinum mm. extensoris digitorum et extensoris indicis;

– vagina tendinis m. extensoris pollicis longi?

93. What is located in the subcutaneous tissue of the anterior region of the wrist:

+ v. mediana antebrachii, n. cutaneus antebrachii medialis et lateralis, r. palmaris n. medianus, r. cutaneus palmaris n. ulnaris;

– r. superficialis n. radilis, a. et vv. ulnares, a. et vv. radiales, n. interosseus anterior;

– v. cephalica, n. cutaneus antebrachii lateralis, r. superficialis n. radialis, r. profundus n. radialis, r. dorsalis n. ulnaris, a. radialis;

– n. ulnaris, n. medianus, n. radialis?

94. What is carpal canal formed by:

+ distal raw of carpal bones;

– distal ends of radial and ulnar bones and interosseous membrane;

– proximal raw of carpal bones;

– retinaculum flexorum, os trapezium?

95. What is canalis carpi radialis formed by:

+ retinaculum flexorum, os trapezium;

– retinaculum extensorum, os hamatum;

– interosseous membrane, os trapezium;

– retinaculum flexorum, distal raw of carpal bones?

96. What is located in the subcutaneous tissue of the posterior region of the wrist:

+ v. cephalica, v. basilica, r. superficialis n. radialis, r. dorsalis n. ulnaris, n. cutaneus antebrachii posterior;

– r. profundus n. radialis, r. palmaris n. medianus, r. palmaris n. ulnaris, v. mediana antebrachii;

– r. superficialis n. radialis, a. et vv. ulnares, a. et vv. radiales, n. interosseus anterior;

– v. cephalica, n. cutaneus antebrachii lateralis, r. superficialis n. radialis, r. profundus n. radialis, r. dorsalis n. ulnaris, a. radialis?

Test questions and answers for practical lesson № 5

1. How is the collateral circulation carried out in ligation of a. axillaris in trigonum clavipectorale above the origin of a. thoracoacromialis:
+ a. subclavia → truncus thyreocervicalis → a. suprascapularis → a. circumflexa scapulae → a. subscapularis → a. axillaris;
– a. subclavia → a. axillaris → a. thoracica lateralis → aa. intercostales anteriores → a. thoracodorsalis → a. subscapularis → a. axillaris;
– a. subclavia → a. thoracoacromialis → r. acromialis → rete acromiale → aa. circumflexa humeri anterior et posterior → a. axillaris;
– a. subclavia → a. transversa colli → r. profundus a.transversa colli → aa. circumflexa humeri anterior et posterior → a. axillaris?

2. How is the collateral circulation carried out in ligation of a. axillaris in trigonum pectorale:
+ a. subclavia → truncus thyreocervicalis → a. suprascapularis → a. circumflexa scapulae → a. subscapularis → a. axillaris;
+ a. axilaris → a. thoracoacromialis → rete acromiale → aa. circumflexa humeri anterior et posterior → a. axillaris;
– a. subclavia → a. transversa colli → a. suprascapularis → a. circumflexa scapulae → a. subscapularis → a. axillaris
– a. axillaris → a. thoracica interna → aa. intercostales anteriores → a. thoracica lateralis → a. axillaris?

3. How is the collateral circulation carried out in ligation of a. axillaris in trigonum subpectorale below the origin of a. subscapularis:
+ a. axillaris → a. thoracoacromialis → r. acromialis → rete acromiale → aa. circumflexa humeri anterior et posterior → a. axillaris;
– a. subclavia → truncus thyreocervicalis → a. suprascapularis → a. circumflexa scapulae → a. subscapularis → a. axillaris;

– a. subclavia → a. transversa colli → r. profundus a. transversa colli → a. circumflexa scapulae → a. subscapularis → a. axillaris;
– a. subclavia → a. thoracica interna → aa. intercostales anteriores → a. thoracodorsalis → a. subscapularis → a. axillaris?

4. How is the collateral circulation carried out in ligation of brachial artery in the middle third of the arm:
+ a. brachialis → a. profunda brachii → a. collateralis radialis → a. recurrens radialis → a. radialis;
+ a. brachialis → a. profunda brachii → a. collateralis media → a. interossea recurrens → a. interossea posterior → a. interossea communis → a. ulnaris;
– a. brachialis → a. collateralis ulnaris inferior → r. anterior a. recurrens ulnaris → a. ulnaris;
– a. brachialis → a. collateralis ulnaris inferior → r. posterior a. recurrens ulnaris → a. ulnaris?

5. How is the collateral circulation carried out in ligation of femoral artery in the first department:
+ a. iliaca interna → a. glutea interior → r. ascendens a. circumflexa femoris lateralis → a. circumflexa femoris lateralis → a. profunda femoris → a. femoralis;
+ a. iliaca interna → a. obturatoria → r. profundus a. circumflexa femoris medialis → a. circumflexa femoris medialis → a. profunda femoris → a. femoralis;
– a. femoralis → a. genus descendens → a. genus superior medialis et lateralis → a. poplitea;
– a. femoralis → a. profunda femoris → a. genus descendens → a. genus superior medialis et lateralis → a. poplitea?

6. What test is used for diagnostics of valvular insufficiency of superficial veins:
+ Troyanov – Trendelenburg test;
– Pratt test;
– Sheinis test;

– Delbet – Perthes test?

7. What test is the most demonstrative for diagnostics of incompetent perforator veins:
+ Pratt test;
– Sheinis test;
– Troyanov – Trendelenburg test;
– Delbet – Perthes test?

8. What tests are used for diagnostics of deep veins patency:
+ Pratt test;
+ Delbet – Perthes test;
– Sheinis test;
– Troyanov – Trendelenburg test?

9. What does Troyanov – Trendelenburg operation consist of:
+ exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– removal of the great saphenous vein with the vein stripper;
– varicose veins ligation and varicotomy from the separate discissions;
– suprafascial ligation of perforating veins;
– subfascial ligation of perforating veins?

10. What does Babcock operation consist of:
+ removal of the great saphenous vein with the vein stripper;
– exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– varicose veins ligation and varicotomy with discission from the inguinal fold to medial malleolus;
– varicose veins ligation and varicotomy from the separate discissions;
– suprafascial ligation of incompetent perforator veins;
– subfascial ligation of perforating veins?

11. What does Madelung operation consist of:
+ varicose veins ligation and varicotomy with discission from the inguinal fold to medial malleolus;
– removal of the great saphenous vein with the vein stripper;
– exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– varicose veins ligation and varicotomy from the separate discissions;
– suprafascial ligation of incompetent perforator veins;
– subfascial ligation of perforating veins?

12. What does Narath operation consist of:
+ varicose veins ligation and varicotomy from the separate discissions;
– removal of the great saphenous vein with the vein stripper;
– exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– suprafascial ligation of incompetent perforator veins;
– subfascial ligation of perforating veins;
– varicose veins ligation and varicotomy with discission from the inguinal fold to medial malleolus?

13. What does Cockett operation consist of:
+ suprafascial ligation of incompetent perforator veins;
– varicose veins ligation and varicotomy from the separate discissions;
– removal of the great saphenous vein with the vein stripper;
– exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– suprafascial ligation of incompetent perforator veins;
– varicose veins ligation and varicotomy with discission from the inguinal fold to medial malleolus?

14. What does Linton operation consist of:
+ subfascial ligation of incompetent perforator veins;

– suprafascial ligation of incompetent perforator veins;
– varicose veins ligation and varicotomy from the separate discissions;
– removal of the great saphenous vein with the vein stripper;
– exposure, ligation and transection of v. saphena magna and its branches close to junction with the femoral vein;
– varicose veins ligation and varicotomy with discission from the inguinal fold to medial malleolus?

15. What access is used for ligation of incompetent perforator veins in trophic ulcers and how is it performed:
+ Felder access, strictly along the posterior surface of anticnemion;
– Madelung access, along the inner surface of anticnemion;
– Troyanov – Trendelenburg, along the inner surface of anticnemion;
– Schede – Kocher access, along the inner surface of anticnemion;
– Klapp – Sokolov access, along the inner surface of anticnemion?

16. What does varicosity ligation by Schede – Kocher consist of:
+ ligature is tied above the gauze swab;
+ ligature is carried out percutaneously onto varicosities;
+ ligature is carried out under the vein and led out from the opposite site;
– ligature is carried out in the opposite direction above the vein and led out outwards from the puncture point;
– ligature is carried out percutaneously onto v. saphena magna?

17. What does varicosity ligation by Klapp – Sokolov consist of:
+ ligature is carried out percutaneously;
+ ligature is carried out under the vein and led out from the opposite site;
+ ligature is carried out in the opposite direction above the vein and led out outwards from the puncture point;
+ ligature is carried out above the vein and let out from the puncture point;

– ligature is carried out under the vein and led out from the opposite site;
– ligature is carried out under v. saphena magna close to its junction with femoral vein?

18. What does Carrel vascular suture consist of:
+ three traction sutures are put, and continuous locking stitches are put between them;
– three U-shaped traction sutures are put;
– U-shaped sutures are put on each margin ;
– two interrupted traction sutures are put?

19. What does Carrel – Morozova consist of:
+ two interrupted traction sutures are put and continuous locking stitches are put between them;
– three U-shaped traction sutures are put;
– U-shaped sutures are put on each margin ;
– interrupted sutures are put between traction sutures?

20. Name the invariable indications to limb amputation:
+ complete or almost complete traumatic extremity avulsion, open injuries of extremity with splintering of bones and joints, great vessels rupture, main nerve trunks rupture, extensive muscle crushing, limb gangrene, severe infection, malignant bone tumors;
– congenital deformities;
– chronic osteitis;
– chronic bone tuberculosis?

21. Name the relative indication to limb amputation:
+ chronic bone tuberculosis, immedicable neurotrophic ulcers, chronic osteitis, congenital deformities;
– life-threatening severe infection;
– limb gangrene?

22. When is a secondary limb amputation performed:

+ in life-threatening severe inflammations;
– for relative indications;
– if the residual limb is unsuitable for prosthesis;
– shortly after the injury for immediate indications?

23. When is a late limb amputation performed:
+ for relative indications;
– if the residual limb is unsuitable for prosthesis;
– in life-threatening severe inflammations;
– shortly after the injury for immediate indications?

24. When is limb reamputation performed:
+ if the residual limb is unsuitable for prosthesis;
– for relative indications;
– in life-threatening severe inflammations;
– shortly after the injury for immediate indications?

25. How are tissues in guillotine amputation dissected:
+ in one plane, at one level soft tissues are dissected and the bone is sawn;
– soft tissues are dissected to the bone;
– the bone is sawn at the level of retracted soft tissues;
– the bone is sawn proximally from retracted soft tissues?

26. When is the guillotine amputation performed:
+ in serious patients;
+ in gas-gangrene;
+ in time of war;
– is not performed?

27. How is the single-step circular amputation performed:
+ the skin is dissected together with the muscles in the same plane, the bone is sawn along the edge of retracted and proximally pulled soft tissues;
– soft tissues are dissected and the bone is sawn in the same plane;

– first the skin, subcutaneous tissue and fascia are dissected, and then muscles are dissected?

28. How is the double-stage circular amputation performed:
+ first the skin, subcutaneous tissue and superficial fascia are dissected;
+ on the level of retracted skin the muscles are dissected;
+ the bone is sawn along the edge of retracted and pulled muscles;
– the skin is dissected with the muscles?

29. Where is the arresting bleeding tourniquet twisted in limb amputation for malignant tumor:
+ as close as possible to the intersection of tissues more proximal of amputation level;
+ over the part of the limb for amputation, more distal of amputation level;
– is not twisted;
– just over the part of the limb for amputation?

30. Where is the arresting bleeding tourniquet twisted in limb amputation in ischemic peripheral vascular disease:
+ just more distal of amputation level;
– is not twisted;
– just more proximal of amputation level;
– as close as possible to the intersection of tissues more proximal and distal of amputation level?

31. Where is the skin dissection performed in circular amputation:
+ distally of supposed amputation level; by limb circumference at the level of amputation;
– proximally of supposed amputation level;
– by 1/2 of limb circumference at the level of amputation;
– by the limb circumference at the level of amputation?

32. What is the flap length in limb amputation:

+ should be equal to diameter of the limb at the level of amputation; adding 1/6 of limb circumference by tissue contractility;
– should be equal to 1/2 of limb circumference at the level of amputation;
– should be equal to the limb circumference at the level of amputation?

33. How is muscle treatment in myoplastic amputation performed:
+ muscles are transected 2–3 cm more distal of the level of bone sawing;
+ muscles are sutured to the bonesaw-line;
+ muscles are sutured over the bonesaw-line;
– muscles are transected 2–3 cm proximal of the level of bone sawing?

34. How to perform exarticulation of II finger:
+ by Farabeuf;
+ the incision is made on the opisthenar at the level of metacarpophalangeal joint;
+ the incision is performed to the middle of the proximal phalanx of the radial side, through the palmar surface to the ulnar edge of the phalanx and, before reaching the interdigital fold they turn to the opisthenar to the beginning of the incision;
– by Luppi;
– the transverse incision is performed at the level of palmar digital crease;
– the longitudinal section is performed on the opisthenar over the head of metacarpal bone and to the circumferential incision?

35. How to perform exarticulation of III finger:
+ by Luppi; the transverse incision is performed at the level of palmar digital crease; the longitudinal section is performed on the opisthenar over the head of metacarpal bone and to the circumferential incision;
– by Farabeuf;

– the incision is made on the opisthenar at the level of metacarpophalangeal joint;
– the incision is performed to the middle of the proximal phalanx through the palmar surface and, not reaching the interdigital fold, they turn to opisthenar, and connect it with the dorsal incision?

36. How to perform exarticulation of I finger:
+ by Malgaigne; the proximal part of the incision does not reach I metacarpophalangeal joint; the distal part of the incision does not reach interphalangeal skin fold;
– by Luppi;
– by Garengeot;
– the proximal part of the incision passes more distal of metacarpophalangeal joint;
– the distal part of the incision passes at the level of interphalangeal fold?

37. How to perform exarticulation of toes:
+ by Garengeot; the skin incision is performed along the plantar-digital fold; the dorsal incision has the "scalloped" view and passes distally from the interdigital fold;
– by Sharp;
– by Farabeuf;
– the incision is performed at the level of metatarsophalangeal joints, through the interdigital folds, along the plantar-digital fold and connected with the longitudinal section on the dorsum of foot?

38. How to perform foot amputation:
+ by Sharp; the arcuate dorsal incision is performed forward from the tuberosity of V metatarsal bone to the base of I metatarsal bone; the plantar incision is performed arcuately reaching the heads of metatarsal bones; the metatarsal bones are sawn; the plantar flap is dissected out back to front, leaving musculotendinous elements;
– by Farabeuf;

– the plantar flap is dissected out arcuately at the level of interdigital folds;
– the dorsal incision has the "scalloped" view and reaches with convexity the interphalangeal folds?

39. How to perform below-knee amputation by Pirogov:
+ the stirrup-shaped incision is performed through the sole; the dorsal arcuate incision joins the ends of stirrup-shaped incision; ankle joint is dissected; the heel bone is sawn along the line of stirrup-shaped incision; tibias are sawn in horizontal direction at the level of ankles base; heel bone bonesaw-line is fixed to the tibia bonesaw-line;
– tibias and heel bone are sawn in oblique direction;
– the heel bone is sawn in front of the ankle bone along the line of stirrup-shaped incision?

40. How to perform Gritti operation:
+ Textor arcuate incision is performed on the anterior knee region; the patellar ligament and joint capsule are dissected; crucial ligaments are dissected; cartilage surface of patella is sawn in the frontal plane; the posterior flap convex downwards is dissected out at the level of transverse skin fold of the popliteal region, which consists of skin, subcutaneous cellular tissue and fascia; patella is fixed to the tibia bonesaw-line;
– tibia bonesaw-line is closed with the graft obtained from tuberositas tibiae;
– the stylosteophyte is sawn in the patella, which is put into the marrowy canal of the femoral bone?

41. Name I stage of replantation of the large segment of the limb:
+ primary surgical debridement;
– reconstruction of bony skeleton;
– reconstruction of the main blood circulation;
– reconstruction of muscles and tendons;
– reconstruction of nerves;

– reconstruction of skin covering?

42. Name II stage of replantation of the large segment of the limb:
+ reconstruction of bony skeleton;
– primary surgical debridement;
– reconstruction of the main blood circulation;
– reconstruction of muscles and tendons;
– reconstruction of nerves;
– reconstruction of skin covering?

43. Name III stage of replantation of the large segment of the limb:
+ reconstruction of the main blood circulation;
– reconstruction of bony skeleton;
– primary surgical debridement;
– reconstruction of muscles and tendons;
– reconstruction of nerves;
– reconstruction of skin covering?

44. Name IV stage of replantation of the large segment of the limb:
+ reconstruction of muscles and tendons;
– reconstruction of the main blood circulation;
– reconstruction of bony skeleton;
– primary surgical debridement;
– reconstruction of nerves;
– reconstruction of skin covering?

45. Name V stage of replantation of the large segment of the limb:
+ reconstruction of nerves;
– reconstruction of muscles and tendons;
– reconstruction of the main blood circulation;
– reconstruction of bony skeleton;
– primary surgical debridement;
– reconstruction of skin covering?

46. How to put stitches in a nerve:

+ the nerves are economically cut by Clark; stay sutures are put through the epineurium; perineural sutures are put; epineural sutures are put;
– traction sutures are put behind perineurium;
– the ends of the nerves are grasped with the forceps after epineural anesthesia;
– the ends of the nerves are not cut?

47. Name the main requirements to the tendon suture:
+ it should be simple; one should easy perform it technically; it should not make difficult blood circulation; it should hold strongly the ends of the tendon; it should provide a smooth sliding tendon surface;
– it should not penetrate into the tendon;
– it should not cross the tendon;
– it should provide the impermeability?

48. How to put pull-out tendon suture by Bunnell – Degtyareva:
+ the central end of the tendon is stitched with a wire in transverse direction stepping back 1,5 cm from the injury; the end of the thread passes through the central end in oblique direction; both threads pass parallel to each other in peripheral end of the tendon; the suture is put through the skin and tied with a button;
– the suture for preventing tendon tension is put in central end;
– two pull-out wire sutures are put in tendon ends;
– both threads pass in oblique direction through the peripheral end of the tendon?

49. What does the technique of putting pull-out suture by Bunnell consist of:
+ the pull-out suture for preventing tendon tension is put in the central end; two pull-out wire sutures are put in tendon ends;
– the central end of the tendon is stitched with a wire in transverse direction, put obliquely through the tendon and then through the center of tendon section;

– similarly the suture is put in peripheral end of the tendon and then through the center of tendon section and ligatures are tied;
– U-shaped suture is put, stitching first the peripheral end of the tendon and then the central end in transverse direction?

50. How to put Lange suture:
+ first, the peripheral end of the tendon and then the central one are stitched; the central end of the tendon is stitched in transverse direction, put through the peripheral end and tied;
– the central end of the tendon is stitched in transverse direction and then the stitches are crossed 3–4 times;
– is put through the center of tendon section;
– таким же образом прошивают периферический конец сухожилия;
– the end of the ligatures are tied together and the nodes are placed in the thickness of the tendon?

51. How does the suprascapular nerve pass into the supraspinous scapular bed:
+ through the scapular notch; under the transverse superior ligament of the scapula;
– above the transverse superior ligament of the scapula;
– under the acromial process;
– under the scapular spine;
– under the coracoid process?

52. How does the suprascapular artery pass into the supraspinous scapular bed:
+ above the transverse superior ligament of the scapula;
– through the scapular notch;
– under the transverse superior ligament of the scapula;
– above the acromial process;
– above the coracoid process?

53. Which neurovascular bundles pass between the muscles along the medial scapular edge:
+ n. dorsalis scapulae; r. profundus a. transversa colli;
– a. suprascapularis;
– a. subscapularis;
– n. axillaris?

54. What passes in canalis supinatorius:
+ deep branch of the radial nerve;
– superficial branch of the radial nerve;
– musculocutaneous nerve;
– median nerve;
– dorsal branch of the ulnar nerve?

55. Name the point of needle puncture for blockade of the ulnar nerve in operations on the hand:
+ in the point of intersection of the proximal wrist fold with the radial tendon edge of m. flexor carpi ulnaris;
– in the point of intersection of the proximal wrist fold with the ulnar tendon edge of m. flexor carpi radialis;
– in the region of interdigital folds;
– in the intermetacarpal gap in horizontal direction drawn on the dorsum of hand from I metacarpophalangeal articulation to the ulnar edge of metacarpus;
– in the floor of "anatomical snuffbox"?

56. Name the point of needle puncture for blockade of the radial nerve in operations on the hand:
+ in the floor of "anatomical snuffbox";
– in the intermetacarpal gap in horizontal direction drawn on the dorsum of hand from I metacarpophalangeal articulation to the ulnar edge of metacarpus;
– in the point of intersection of the proximal wrist fold with the ulnar tendon edge of m. flexor carpi radialis;

– in the point of intersection of the proximal wrist fold with the radial tendon edge of m. flexor carpi ulnaris;
– in the region of interdigital folds?

57. Name the point of needle puncture for blockade of the median nerve in operations on the hand:
+ in the point of intersection of the proximal wrist fold with the ulnar tendon edge of m. flexor carpi radialis;
– in the point of intersection of the proximal wrist fold with the radial tendon edge of m. flexor carpi ulnaris;
– in the region of interdigital folds;
– in the intermetacarpal gap in horizontal direction drawn on the dorsum of hand from I metacarpophalangeal articulation to the ulnar edge of metacarpus;
– in the floor of “anatomical snuffbox”?

The list of theoretical questions on the theme "Clinical anatomy and operative surgery of the lower and upper limbs" to the final modular control

1. Clinical anatomy of the gluteal region. Superficial, deep compartments, cellular spaces of the gluteal region and their content.

2. Surgical anatomy of the neurovascular bundles of the supra- and infrapiriform foramens. Incisions for exposing neurovascular bundles and for opening phlegmons of the gluteal region.

3. Clinical anatomy of the posterior region of the thigh. Incisions for opening phlegmons of the posterior region of the thigh.

4. Surgical anatomy of the sciatic nerve. Exposure and suture of the sciatic nerve. Indications and suture technique.

5. Surgical anatomy of the hip joint.

6. Puncture, arthrotomy and resection of the hip joint: indications and execution technique.

7. Clinical anatomy of the anterior region of the thigh. Clinical anatomy of the anterior compartment of the thigh. Incisions for opening the phlegmon of the anterior compartment of the thigh. Clinical anatomy of the medial compartment of the thigh. Incisions for opening the phlegmon of the medial compartment of the thigh.

8. Surgical anatomy of the femoral triangle, obturator and adductor canals. Topography and content of the vascular and muscular lacunae. Surgical anatomy of the femoral canal.

9. Surgical anatomy of the femoral artery.

10. Surgical anatomy of the femoral hernias. Operative therapy of femoral hernia. Features of surgical treatment of the strangulated femoral hernias.

11. Clinical anatomy of the anterior and posterior region of the knee. Surgical anatomy of the popliteal fossa.

12. Surgical anatomy of the knee joint. The ways of paraarticular phlegmon spreading of the knee joint.

13. Puncture of the knee joint: indications, technique. Arthrotomy and resection of the knee joint: indications, technique.

14. Clinical anatomy of the anterior region of the lower leg. The structure of the anterior compartment of the lower leg. Incisions for drainage of the phlegmon of the anterior compartment of the lower leg.

15. Clinical anatomy of the posterior region of the lower leg. Superficial fibrous and deep fibro-osseous compartment of the lower leg. The structure of the cruropopliteal canal. Incisions for drainage of the phlegmon of the posterior compartment of the lower leg.

16. The structure of the lateral compartment of the lower leg and the superior muscular-peroneal canal. Incisions for drainage of the phlegmon of the lateral compartment of the lower leg.

17. Clinical anatomy of the medial malleolus region. Surgical anatomy of the medial malleolar canal.

18. Clinical anatomy of the plantar surface of the foot. Surgical anatomy of the medial, lateral and central compartmens of the plantar surface of the foot. The structure of the plantar and calcaneal canal. The ways of purulent process spreading in phlegmon of the foot. Incisions for drainage of the phlegmon of the foot.

19. Clinical anatomy of the scapular region. Surgical anatomy of the fibro-osseous compartments of the scapular region, prescapular fissures and incisions for their drainage.

20. Clinical anatomy of the deltoid region. Surgical anatomy of the subdeltoid cellular space and incisions for its drainage. The ways of the inflammatory process spreading from the subdeltoid cellular space.

21. Surgical anatomy of the shoulder joint. The ways of periarticular phlegmon spreading. Puncture, arthrotomy and resection of the shoulder joint: indications, technique.

22. Clinical anatomy of the axillary region. Surgical anatomy of the axillary artery. Surgical anatomy of the brachial plexus. Brachial plexus block. The ways of the purulent-inflammatory process spreading of the axillary fossa. Incisions for the phlegmon exposure of the axillary fossa.

23. Clinical anatomy of the arm. Compartments of the arm and their content. Surgical anatomy of the neurovascular bundles of the arm.

24. Clinical anatomy of the elbow region: lateral, medial and central compartments and their content. Clinical anatomy of the cubital fossa. Surgical anatomy of the medial and lateral neurovascular bundles of the cubital fossa.

25. Surgical anatomy of the elbow joint. Puncture, arthrotomy and resection of the elbow joint: indications, technique.

26. Clinical anatomy of the forearm. Anterior, lateral and posterior compartments of the forearm and their content. Surgical anatomy of the vessels and nerves of the forearm. Incisions for phlegmon drainage of the forearm.

27. Clinical anatomy of the wrist area. Surgical anatomy of the wrist canals. Anatomical snuffbox. Topography of the canals and synovial sheaths of the extensor tendons of the wrist and fingers.

28. Clinical anatomy of the palm. Surgical anatomy of the lateral, median, and central compartments of the palm. Surgical anatomy of the subaponeurotic and subtendinous cellular spaces of the central compartment of the palm. Incisions for phlegmon drainage of the hand.

29. Surgical anatomy of the synovial sheaths of the flexor tendons of the fingers. Incisions for tendovaginitis drainage.

30. Panaritium: types of panaritium and methods of surgical treatment.

31. Technique of conduction anesthesia of the median, ulnar and radial nerves.

32. Symptoms of the median, ulnar and radial nerves injury.

33. Exposure of the radial and median nerves in the middle third of the arm: indications, technique.

34. Exposure of the ulnar nerve in the middle third of the forearm: indications, technique.

35. The technique of exposure of the axillary artery and collateral blood circulation after its ligation.

36. The technique of exposure of the brachial artery in the upper, middle, lower third of the shoulder. The ways of collateral blood circulation after ligation of the brachial artery.

37. The technique of exposure of the ulnar and radial arteries.

38. The technique of exposure of the femoral artery. The ways of the collateral blood circulation after ligation of the femoral artery.

39. The technique of exposure of the popliteal artery with the help of central and median approach. The ways of collateral blood circulation after ligation of the popliteal artery.

40. The technique of exposure of the anterior and posterior tibial arteries.

41. Arterioplasty, vasoligation, vessel suture, thromboembolectomy, thrombendarterectomy, angioplasty, vein bypass: indications, technique.

42. Methods of surgical treatment of varicose veins of the lower extremities.

43. Indications for amputation and disarticulation. Classification of amputations. Stages of amputation. Calculation of the flap length. Ligation of vessels, nerves and bones.

44. The technique of amputation and disarticulation of fingers and toes.

45. The technique of arm and forearm amputation.

46. The technique of foot amputation by Sharp.

47. The technique of osteoplastic amputation by Pirogov and in Guinther modification: indications, technique.

48. The technique of thigh amputation by Gritti – Shimanovskiy and in Sabaneev and Albrecht modification: indications and technique.

49. Three-moment amputation of the thigh by Pirogov: indications and technique.

50. Replantation of the large segment of the limb: marking of anatomical formations, technique of restoration of bony skeleton, main blood circulation, muscles, tendon and nerves.

51. Tendon suture: kinds, technique.

52. Nerve suture: technique.

CONTENTS

Навчальне видання

Методичні вказівки

до практичних занять
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