

SUBJECTS 1st year, 1st semester

I. Embryology

1. Spermatogenesis and blood testes barrier
2. Spermogenesis. Sperm characteristics
3. Oogenesis and arrested prophase
4. Follicular cycle
5. Ovulation. Corpus luteum. Corpus albicans
6. Endometrial (uterine) cycle
7. Trial of gametes in the female genital tract
8. Insemination. Capacitation. Acrosome reaction
9. Fertilization. Superfecundation. Superfetation.
10. Cleavage. Implantation. Decidual reaction.
11. Second week - the evolution of the embryonic disk
12. Second week - the evolution of trophoblast
13. Third week – development of the intraembryonic mesoderm and formation of the notochord
14. Third week - evolution of trophoblast
15. Formarea and evolution of neural plate
16. Embryonic layers- main derivatives
17. Somites – formation and development
18. Formation of blood and circulatory system. Formation of intraembryonic and extraembryonic cavity.
19. Fetal period - general features
20. Amniotic cavity –development, evolution, role, characteristics of amniotic fluid
21. Fetal annexes: umbilical cord, yolk sac, allantois
22. Placenta- formation, external configuration
23. Placenta - structure
24. Placenta - functions
25. Development of the limbs. Malformations.

JOINTS

26. Classification of joints. Fibrous joints, cartilaginous joints
27. Structure of a synovial joint. Synovial fluid.
28. Movements in joints. Guidance of the movement in joints. Axis of the movement. Functional classification of joints (according to the number of the axes)
29. Atlantooccipital joint– anatomy (general knowledge). Median atlantoaxial joint- anatomy (general knowledge). Biomechanics of craniovertebral joints (general knowledge; behavior in sudden acceleration and deceleration)
30. Intervertebral joints. Intervertebral disc. Biomechanics of vertebral

column; structures involved in disc herniation. Palpation and anatomical landmarks of the vertebral column.

31. Costovertebral si costosternal joints, sternum and costal margins. Biomechanics of costovertebral si costosternal joints. Numbering of ribs. Thoracic landmark lines, osseous landmarks for the vertebrae.

32. Sternoclavicular si acromioclavicular joints – structure and biomechanics. Palpation and anatomical landmarks.

33. Shoulder joint- anatomy and biomechanics. Anatomical substratum of scapulohumeral peri-arthritis. Palpation of the articular elements.

34. Elbow joint – anatomy and biomechanics. Palpation and anatomical landmarks.

35. Radiocarpal joint - anatomy and biomechanics. Palpation and anatomical landmarks.

36. Hip joint- anatomy and biomechanics. Palpation and anatomical landmarks. Congenital hip dislocation-general knowledge.

37. Knee joint- articular surfaces, menisci, capsule, ligaments. Biomechanics of knee joint. Palpation and anatomical landmarks. Landmarks for articular puncture.

38. Tibiofibular, talocrural, subtalar, talocalcaneonavicular joints- general knowledge and biomechanics. Palpation and anatomical landmarks

39. Plantar arch. General knowledge.

II. Upper limb, back, thoracic walls

1. Extrinsic back muscles (superficial and intermediate back muscles) – definition, location, relations, nerve supply. Clinical implications (recognition of paralyses).

2. Nuchal region-topography, relations

3. Intercostal space. Clinical implications. Thoracic puncture and intercostal nerve block (anaesthesia).

4. Pectoralis major muscle, pectoralis minor muscle and serratus anterior muscle.

5. External configuration and stratigraphy of mammary region. Structure of mammary gland. Means of sustentation of gland.

6. Axillary lymph nodes. Lymphatic drainage of mammary gland. Notion of sentinel lymph node. Clinical implications

7. Shoulder muscles.-location, relations, nerve supply; concepts of topography. Deltopectoral groove. Clinical implications.

8. Anterior muscles of arm. Transversal section through the middle arm. Palpation of the regional elements.

9. Triceps brachii muscle. Transversal section through the middle third of the arm. Location of vessels and nerves.

10. Anterior muscles of forearm- location, relations, nerve supply. Clinical implications.

11. Lateral muscles of forearm- location, relations, nerve supply. Clinical implications.
12. Posterior muscles of forearm- location, relations, nerve supply. Clinical implications.
13. Fasciae of the upper limb. Synovial sheaths. Clinical implications.
14. Flexor retinaculum, extensor retinaculum. Carpal tunnel. Clinical implications.
15. Axillary region-description. Clinical implications.
16. Cubital fossa (anterior region of elbow). Bicipital grooves. Clinical implications.
17. Groove of the pulse. Anatomical snuffbox. Topography of the anterior region of the forearm in its distal third.
18. Palmar region – topography, structure. Clinical implications.
19. Axillary artery – course, relations, branches
20. Brachial artery – course, relations, branches
21. Radial artery - course, relations, branches
22. Ulnar artery - course, relations, branches
23. Superficial palmar arch
24. Deep palmar arch and carpal arches
25. Cephalic and basilic veins
26. Arterial periarticular anastomoses of the upper limb- definition and biological significance.
27. Brachial plexus– formation, parts and relations. Clinical implications.
28. Median nerve- course, relations, branches, innervation territory, aspect of paralysis
29. Axillary and radial nerves- course, relations, branches, innervation territory, aspect of paralysis
30. Ulnar and musculocutaneous nerves- course, relations, branches, innervation territory, aspect of paralysis
31. Brachial and antebrachial cutaneous nerves. Sensitive nerve supply of the upper limb.
32. Palpation and projection of the arteries of the upper limb. Landmarks for venous denudations at the level of the upper limb
33. Palpable osseous landmarks of the trunk and limbs
34. Nerves of the upper limb that are directly related to the bone. Clinical significance of this relation.

III. Abdominal wall, lower limb

1. Rectus abdominis muscle. Sheath of rectus abdominis. Clinical implications.
2. External oblique muscle, internal oblique muscle and transversus abdominis muscle location, description, relations, nerve supply. Clinical

implications (neurovascular routes, paralyses, direction of muscular fibres)

3. Inguinal canal – delimitation, walls. Clinical implications

4. Inguinal canal – rings, contents. Clinical implications

5. Inguinal fossae on the deep surface of the abdominal wall- classification of hernias

6. Femoral canal. Corona mortis. Clinical implications (difference between inguinal and femoral hernias).

7. Weak points of the abdominal wall. Linea alba and linea alba externa. Neurovascular routes in the anterior abdominal wall. Clinical implications.

8. Course of the epigastric vessels at the level of the abdominal wall. Anastomosis between epigastric arteries. Clinical considerations (surgical protection of vessels; appearance in aortic coarctation)

9. Osseous pelvis. Internal and external pelvimetry

10. Gluteal region – topography, enumeration of muscles and their nerve supply. Clinical implications (injections in gluteal region, communications of the region, possible injuries associated with fractures)

11. Anterior muscles of thigh- location, relations, nerve supply. Clinical implications. Types of paralyses.

12. Medial muscles of thigh- location, relations, nerve supply. Clinical implications.

13. Posterior muscles of thigh- location, relations, nerve supply. Clinical implications.

14. Lacunae vasorum and musculorum. Clinical implications.

15. Adductor canal and hiatus of adductor magnus-delimitation, contents

16. Femoral triangle. Clinical implications. Palpations.

17. Popliteal region. Clinical implications.

18. Anterior and lateral muscles of calf (leg)- location, relations. Clinical implications

19. Posterior muscles of leg- location, relations, nerve supply. Clinical implications.

20. Medial and lateral retromalleolar grooves

21. Femoral artery – course, relations, branches

22. Popliteal artery – course, relations, branches

23. Anterior tibial artery – course, relations, branches

24. Posterior tibial artery and plantar arteries – course, relations, branches

25. Dorsal artery of foot (dorsalis pedis artery)- course, relations, branches

26. Great and small saphenous veins. Clinical implications.

27. Inguinal lymph nodes. Clinical implications (differential diagnosis of adenopathies)

28. Lumbar plexus– formation, relations, enumeration of branches

29. Femoral nerve- course, relations, branches, innervation territory, aspect of paralysis. Clinical significance of the relations.
30. Obturator nerve. Clinical significance of its relations. Aspect of paralysis.
31. Lateral femoral cutaneous nerve, iliohypogastric, ilioinguinal and genitofemoral nerves. Clinical significance of their relations.
32. Sacral plexus– formation (general knowledge), relations- clinical significance
33. Gluteal nerves and posterior femoral cutaneous nerve
34. Sciatic nerve – course, relations, branches. Clinical aspect of compression at L4-L5 and L5- S1.
35. Common and superficial peroneal nerves-course, relations, branches, innervation territory. Clinical aspect of paralysis
36. Deep peroneal nerve and sural nerve. Tibial and plantar nerves. General knowledge. Aspects of paralyzes.
37. Sensitive nerve supply of the lower limb. Palpable osseous landmarks of the lower limb
38. Palpation and projections of the arteries of the upper and lower limbs. Landmarks for the arterial puncture and venous denudations at the level of the lower limb.