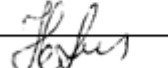


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GUIDELINES FOR STUDENTS ON THE TOPIC OF PRACTICAL TRAINING:
"Male genitals: external and internal structure, topography".

Specialty general medicine

Course I

Theme of the lesson: « *Male genitals: external and internal structure, topography* ».

Aim of the lesson:

- learn to use Latin terminology to name and demonstrate the organs of the male genital organs and their parts on natural preparations
- study the internal structure and functions of the male genitals and their topography in the abdominal and pelvic cavities.

Motivation of the lesson topic: the formation of knowledge about the structure and functioning of the male genital organs for the study of subsequent sections of anatomy , histology, normal physiology, topographic anatomy, pharmacology, pathological anatomy, pathological physiology, and is the basis for the study of clinical disciplines: urology and internal diseases.

Control questions on the topic of the lesson (App. 1)

Plan of the lesson.

1. Checking the assimilation of knowledge obtained in the previous lesson: test control, oral interview, test of practical skills.

2. Conversation on the topic of the lesson.

3. Preparation of tasks.

3.1. Independent classroom work of students

The anatomy of the male genitals should begin to be studied with the testicle and its appendage. Determine its functions as an exo-and endocrine gland. On preparations, consider the location, surfaces, edges and ends of the testicle. On a separate preparation of the testicle, opened by the sagittal section, study its internal structure, as well as the appendage of the testicle. On the complex of organs of the genitourinary apparatus, analyze the topography of the testicle. The formation of testicular shells and elements of the spermatic cord is explained in connection with the process of lowering the testicle into the scrotum, simultaneously repeating the anatomy of the inguinal canal.

The range of bodies to consider the topography of the vas deferens, to show its confluence with the duct of the seminal vesicle and the formation of the ejaculatory duct, where it flows into the region of the seminal hillock, in the prostate part of the male urethra.

On the organ complex and on the cadaver, find the prostate gland, analyze its relationship with the bladder, rectum, genitourinary diaphragm and male urethra. Prostate muscular organ and the gland both: the muscle part regulates the passage of either urine or sperm through the male urethra, the glandular part produces sperm components that activate spermatozoa.

Pay attention to the topography of the bulbo-urethral glands, whose exit ducts open into the cavernous part of the male urethra

The structure of the penis is considered on the preparation of the male perineum with the prepared male external genitals and on the diagrams of the sagittal and cross-section. Identify the root, body, head of the penis, its surface, the functions of the cavernous and spongy bodies. the bulb and head are parts of the spongy body, along which also passes the spongy part of the male urethra. On the preparation with the urethra opened in front, in its prostate part, find the seminal mound, the mouth of the vas deferens, the ducts of the prostate gland, the prostate uterus. The narrowing of the male urethra should be particularly noted. Bends of the male urethra are considered on preparations and on the diagram of the sagittal section of the channel.

List of anatomical formations that a student should be able to find and demonstrate on natural preparations

1. Male genital organs	Organa genitalia masculina
2. Testicle	Testis (orchis)
3. Upper end of the testicle	Extremitas superior testis
4. Lower end of the testicle	Extremitas inferior testis
5. Lateral surface of the testicle	Facies lateralis testis
6. Medial surface of the testicle	Facies medialis testis
7. The leading edge of the testicle	Margo anterior testis
8. Posterior edge of the testicle	Margo posterior testis
9. Albuginea	Tunica albuginea
10. Mediastinum of the testicle	Mediastinum testis
11. Testicle segments	Lobuli testis

12. The parenchyma of the testis	Parenchyma testis
13. Convoluted seminal tubules	Tubuli seminiferi contorti
14. The straight seminal tubules	Tubuli seminiferi recti
15. A network of testicle	Rete testis
16. Testicular tubules that carry out the testes	Ductuli efferentes testis
17. Epididymis	Epididymic
18. The head of the appendage of the testicle	Caput epididymidis
19. The body of the appendage of the testicle	Corpus epididymidis
20. Tail of the appendage of the testicle	Cauda epididymidis
21. Deferent duct	Ductus deferens
22. Ampoule of the vas deferens	Ampulla ductus deferentis
23. Vas deferens	Ductus ejaculatorius
24. Seminal vesicle	Vesicula (glandula) seminalis
25. Excretory duct	Ductus exterioris
26. Spermatic cord	Funiculus spermaticus
27. External seminal fascia	Fascia spermatica externa
28. The muscle that lifts the testicle	M. cremaster
29. Fascia of the muscle that lifts the testicle	Fascia cremasterica
30. Internal seminal fascia	Fascia spermatica interna
31. The vaginal lining of the testicle	Tunica vaginalis testis
32. Prostate	Prostata
33. Base of the prostate	Basis prostatae
34. The tip of the prostate	Apex prostatae
35. Anterior surface of the prostate	Facies anterior prostatae
36. Posterior surface of the prostate	Facies posterior prostatae
37. Lower-lateral surface of the prostate	Facies inferolateralis prostatae
38. Lobe (right and left) of the prostate	Lobus (dexter et sinister) prostatae
39. The isthmus of the prostate (middle lobe)	Isthmus prostatae (lobus medius)
40. Bulbourethral gland	Glandula bulbourethralis
41. Penis	Penis
42. The root of the penis	Radix penis
43. The body of the penis	Corpus penis
44. Legs of the penis	Crura penis
45. Back of the penis	Dorsum penis
46. Balanus	Clans penis
47. Crown of the head	Corona glandis
48. Bridle of the foreskin	Frenulum preputii
49. The cavernous body of the penis	Corpus cavernosum penis
50. The spongy body of the penis	Corpus spongiosum penis
51. The bulb of the penis	Bulbus penis
52. Male urethra	Urethra masculina
53. Prostate part of urethra	Pars prostatica
54. The membranous part of urethra	Pars membranacea
55. The spongy part of urethra	Pars spongiosa
56. Navicular fossa of the urethra	Fossa navicularis urethrae
57. The external opening of the urethra	Ostium urethrae externum
58. Scrotum	Scrotum
59. «Fleshy» shell	Tunica dartos

3.2. Control of the knowledge obtained in this lesson (App. 2).

3.3. Clinical cases.

1. During the examination of the patient, the doctor found the left testicle in the abdominal cavity near the deep ring of the inguinal canal. How should I evaluate this position of the testicle as an anomaly, or a variant of its development?
2. In dropsy, a certain amount of serous fluid is released between the shells of the testicle. Where does the released serous fluid accumulate ?
3. In a patient with an inflammatory disease of the right lobe of the prostate, the surgeon must dissect the abscess. Can this surgery be performed without opening the prostate part of the urethra?
- 4. Task for the next lesson.** Topic «Male genitals: external and internal structure». The topic "The female genital organs: external and internal structure, topography. Perineum: structure, topography" designed for self-study.

Literature

M. Prives, N. Lysenkov, V. Bushkevich Human anatomy. Vol.1 Moscow:Mir (printed Rajdhanni offset), P. 544-558.

App. 1

Control questions on the topic of the lesson

1. Name and show the internal male genitals.
2. What is the male sex gland, what are its functions?
3. Name and show on the preparation the surfaces, edges and ends of the testicle.
4. In which tubules of the testicle is the spermatogenic epithelium located?
5. In which part of the testicle are the convoluted tubules located?
6. How many lobes does the testicle have?
7. To what edge of the testicle does its mediastinum lie?
8. In what part of the organ is the testicular network located?
9. Name successively the departments of the male sexual system through which the spermatozoa pass.
10. Name and show on the preparation parts of the appendage of the testicle.
11. Name and show on the preparation parts of the vas deferens.
12. What anatomical formations are part of the spermatic cord?
13. What is the name of the duct formed when the ampoule of the vas deferens and the excretory duct of the seminal vesicle merge?
14. Name and show the parts and surface of the prostate on the preparation.
15. Determine the function of the prostate.
16. Name the main anatomical formations that form the penis.
17. List the parts of the male urethra.
18. Name the narrowing of the male urethra.
19. Name the curves of the male urethra.

App. 2

List of questions for the test control of knowledge obtained in the current lesson

1. Seminal vesicles develop from?
2. That is develops from the sexual folds in men?
3. The vas deferens developed from?
4. From an indifferent sexual gland in men develops?
5. From the sexual tubercle in men develops?
6. The internal male genitals include?
7. Testicles are related?
8. Are the testicles relative to each other?
9. The right testicle is located relative to the left one?
10. The left testicle is located relative to the right one?
11. In the testicle distinguish?
12. Does the testicle have edges?
13. In the testicle distinguish the ends?
14. Does the testicle have a surface?
15. The number of lobes in the testicle?

16. The sinus of the appendage of the testicle is open?
17. In the thickness of the mediastinum, the testicles are located?
18. Testicular function?
19. Are spermatozoa produced?
20. The testicular vas deferens are arranged in the following order?
21. Is the appendage of the testicle located?
22. In the appendage of the testicle distinguish?
23. Functions of the epididymis?
24. Is the vaginal lining of the testicle a derivative?
25. The derivative of the transverse fascia of the abdomen is?
26. The fascia of the muscle that lifts the testicle is a derivative?
27. The derivative of the superficial fascia of the abdomen is?
28. The shells of the testicle and scrotum are arranged in the following order?
29. The muscle that lifts the testicle is a derivative?
30. The internal seminal fascia is a derivative?
31. The derivative of the transverse and internal oblique abdominal muscles is?
32. The outer seminal fascia of the testicle is a derivative?
33. The derivative of the peritoneum is?
34. Length of the vas deferens?
35. The main part of the spermatic cord is?
36. Layers of the wall of the vas deferens?
37. The vas deferens are formed by joining?
38. The ampoule of the vas deferens is located in?
39. Length of the vas deferens?
40. The ejaculatory duct opens in?
41. The composition of the seed rope?
42. In the inguinal canal in men passes?
43. Parts of the vas deferens?
44. The excretory duct of the seminal vesicle connects?
45. Are the seminal vesicles located?
46. In the seminal vesicle distinguish?
47. Layers of the seminal vesicle wall?
48. The function of the prostate?
49. Do they pass through the prostate?
50. In the prostate gland distinguish?
51. The surface of the prostate?
52. The part of the prostate that faces the bladder?
53. The base of the prostate gland is reversed?
54. The area of the prostate gland located between the vas deferens and the posterior surface of the urethra is called?
55. The posterior surface of the prostate is reversed?
56. Lobes of the prostate?
57. Is the prostate located?
58. The average lobe of the prostate is called?
59. There are the prostatic excretory ducts opening?
60. The bulbourethral glands open?
61. That is the location of the bulbourethral glands?
62. Functions of the bulbourethral glands?
63. The tip of the prostate is reversed?
64. Is the isthmus of the prostate located?
65. What function does the prostate perform before puberty?
66. The function of the prostate?
67. The male external genitals include?
68. The legs of the penis are formed?
69. Parts of the penis?
70. The bulb of the penis is formed?
71. Ligaments of the penis?

72. The head of the penis formed?
73. What is the name of the free fold of the skin of the penis?
74. The penis consists of?
75. Name of the penis foreskin?