# ODESSA NATIONAL MEDICAL UNIVERSITY

The chair of urology and nephrology

# GUIDELINES the practical lesson for students:

Academic discipline "Urology"

Lesson №1 Symptoms of urological diseases. Peculiarities of the structure of diseases of the genitourinary system in Odesa region.

Academic discipline "Urology"

Level of higher education: Second (Master's)

Knowledge field: 22 "Health Care"

Specialty: 222 "Medicine"

Program of professional education: Medicine

Approved methodological meeting on the chair 28. 08. 2023
Protocol № 1
Head. Chair prof. F.I. Kostev

The theme of seminars: Symptoms of urological diseases. Peculiarities of the structure of diseases of the genitourinary system in Odesa region.- 2 hours

1. The relevance of the topic: The large number and variety of pathological symptoms and situations that may be related to the digestive system, general practitioners have to observe a large number παιματιτίβ, whose problems associated with razladami in the digestive system. Hence the relevance of the topic need some knowledge of the most frequently symptoms of urological diseases, the principles of diagnosis and correct interpretation of diagnostic tests.

#### 2. Entire classes:

#### 2.1. Educational goals:

learn the most common symptoms nyrok diseases, urinary tract and male genitals (pain, afreolaethau urinating, quantitative and qualitative changes in urine), understand the causes and mechanisms of their emergence for the correct collection of history, focused, objective study and interpretation of urine tests.

## 2.2. Educational goals:

teach students better understand modern methods of diagnosing urological diseases and clearly distinguish between the situation if it personally should begin treating the patient (as a doctor in general practice) and where necessary to send the patient to the consultation and treatment to a specialist.

3. Interdisciplinary integration.

#### Disciplines Know Umet

- 1. Propedevtika internal diseases. "Definition and importance of clinical symptoms of urological diseases listed in grafologicheskoy structure classes;" true history gather in patients on urinary pathology;
- 2. Urology. "Difference of acute symptoms and delay anurii urine, and gematurii urethrography; "Anurii species depending on ethyology factor;
- "Gematurii species depending on the source of bleeding;
- "Contrary gematurii;
- "Diagnostic importance of quantitative and qualitative changes in the urine.
- "Hold palpation kidney patient in different positions;
- "Hold palpation and percussion bladder;
- "Hold palpation testicles, appendages, seed kanatika (palpation i gland development in a class" prostate gland tumor ");
- "Hold a general interpretation of the results and analysis of urine samples
- 4. The content of classes.

Complaints of patients with kidney diseases, urinary tract and male genitals are pain syndrome, razladom urinating, quantitative and qualitative changes in urine. Special group of patients account for patients who skarzhutsya to secede from the urethra and sexual function afreolaethau (sexual and reproduction).

For each student, who graduated from Medical University, the most important knowledge of the first symptoms of the group.

Renal colic - one of the most common symptoms of many urological diseases (stone nyrok and ureter, sechokisly diathesis, kidney tumor, ureter, gidronefroz, nefroptoz). Patients treated for kidney κοπίκγ primarily to general practitioners (precinct therapist, a surgeon, a doctor quick assistance), which should, before this fight pain attack, make sure fidelity diagnosis. This implies that knowledge symptoms of kidney colic, its differential diagnosis for sure whether the doctor - that specialty. Each patient suffering from renal colic, should be examined a doctor - urologist to establish its causes, that is, disease diagnosis.

Among razladov urinating emergency requires urgent delay urine. Doctor must understand the reasons for its outbreak to provide proper assistance. At present, in view of Hospital Infection, it must be more rigorous approach to bladder catheterization. From the standpoint of preventing urinary tract infections in the provision of emergency assistance and because of a lack of defect from the conservative events, the advantage is given to puncture nadlobkovoy urinary blader, after which the patient must be sprayleny to the urologist.

In determining the residual urine must be wider use of radiological research and radioisotope techniques than катетеризацієй urinary мізура act after urinating.

Neuderzhanie and incontinence of urine - symptoms with different mechanisms of the outbreak. The clinical evaluation of their can suspect a number of diseases that are localized at the station bladder neck, as well as shortcomings development of sexual organs and urinary systems. The quantitative changes in urine (poliuriya, anuriya), as well as changing its density in patients on urinary pathology, demonstrated the functions of the violation kidney (chronic or acute deficiency kidney). In providing assistance to a patient who has anuriyu, it is necessary first of all establish its kind (arenalnaya, prerenalnaya, renal whether postrenalnaya). Alternate treatment would be wrong.

If there is in the patient's expressed pronheinuria, especially in conditions of normal or improve content in urine uniforms blood elements (leukocytes and erythrocytes), first, we examined patients for the presence glomerulonephritis.

Pyuria and bacteryuria - Incendiary trait of the digestive system for men and women of uric. Analysis of urine allows not only to detect whether the suspect incendiary process (pyelitis, pyelonephritis, urethritis, cystytis, prostatitis, vesicles and others), but also monitor the treatment.

Hematuria can also be a sign of Incendiary process, but above all, it must be seen as a sign of a destructive process (damage mucosa concretion, tumor). In doing so, either - that the process that led to gematuriyu, and may cause mikrogematuriyu. Regardless of the degree of expressiveness gematurii, clinician should conduct patient surveys. Interpretation of acronyms, and the total terminal gematurii is the first item on a patient survey to establish the diagnosis.

Mikrogematuriya in adults, because there are no other symptoms, most often a sign of bladder tumors. Makrogematuriya and uncertain feeling of discomfort or swelling in the lumbar section of the survey should send a patient to find kidney tumor.

Basics of activities indicative of students.

When collecting history in a patient with acute renal attack colic need to clarify:

- 1. Where the pain started (in the lumbar section of whether the pain)?
- 2. As there was pain (suddenly or gradually)?
- 3. Localization and the nature of pain.
- 4. Where pain irradiate?
- 5. What he is accompanied by (urination, blyuvannya, faintness, increased body temperature). When such a patient study carried out by palpation nyrok site, for any symptoms Pasternatskogo and, to avoid acute surgical diseases abdominal cavities, peritoneal symptoms. Of the laboratory research methods urgently conducted common blood and urine analyses.

Each patient in the urinary pathology need to clarify the nature of urinating. If there urination established in what period of time it arises. Day polakyuria typical bladder stoune and cystalgia, a night - for primary manifestations BPH, a constant - for organic bladder disease (cystytis, tumor and other). If there utrudnennogo urination reveals the nature of a jet of urine (dryabl, thin, preryvchaty).

When severe delays urine establishes the time of its offensive, the reason (reflex, disease and damage to the spinal cord, prostate gland tumor, infravesical obstruction). Increased bladder with a delay of urine revealed during the review, palpation, and the total patients - with percussion. For chronic delays typical of urine the presence of residual urine, methods of determining which will consider the following classes. In the case of unwittingly urine, a student must determine that, with two symptoms occurring in the provision of specific case - incontinence (real or false)

or neuderzhanie urine. For the paradoxical ishurii characterized nederzhaniya crowded with urine bladder. When collecting history of patients who complain of the change in the number allocated urine, it should be an accurate measure of the number of pores and determination of the quantity of liquid alcohol patients. In doing so, measured the density of urine, which increased with diabetes mellitus, a decline in nesaharnom diabetes as well as bilateral chronic kidney disease. Monotone and low weight showed pro expressed functional kidney insufficiency, in particular of the violation of kidney function канальців. In a large kidney failure, urine density is responsible leachate density of blood plasma.

In cases where the patient notes олігоурію (allocation of time of less than 500 ml of urine), a student must find out what caused it (reduced kidney blood circulation, chronic kidney disease, partial ureter obstruction, the merging of these reasons). Such patient should be measured blood pressure, which can be so low that renal perfusion will be minimal. If systolic pressure is less than the 80's. Art. Art. develops anuriya. When chronic kidney anuriya not found. Therefore, if the patient is set tseyy dangerous symptom, a student must first establish its cause, particularly to determine not whether she associated with обструкцієй sechovoda that can be caused concretion, casual dressing sechovoda during gynecological operations, rethroperitontal fibrosis, or germination ureter malignant tumors. This species is regarded as anurii postrenalna (ekskretorna). By the secretory anurii include the following types: arenalna (renoprivna), and renal prerenalna.

When an objective examination of student should not only assess the state of the digestive organs, but also other systems. For example, when kidney failure to detect changes from the leather cover of the respiratory organs, sertsevo - vascular system, shlunkovo - gastrointestinal tract. In its review of patient student should bear in mind that the swelling in the lumbar section may occur when paranephritis, kidney tumors, and over the bosom - often indicates overflow bladder with acute or chronic delays urine. Review of external genital organs from children, especially boys, a number of permits to diagnose diseases and anomalies of development, such as balanopostit, fimoz, short bridle flesh gipospadiya, edema testicles, his tumor and others. Palpation of the kidneys should be carried out in different positions patient (horizontal, on the back and side to a healthy, upright).

It should be borne in mind that nyrki palpuyutsya when they increase (gidronefroz, pionephrosis, tumours), deletion (nefroptoz) or anomalies provisions, as well as in persons asthenic constitution. Review of external genital organs necessarily complemented their palpation. There is a need to pay attention to the existence of both testicles in the scrotum.

The student must explain the patient методіку collect urine for analysis, because it wrongly collected urine, especially among girls and women, can cause incorrect diagnosis, which is linked to erroneous identification pyuria and bactheriuria. This happens because of contamination of urine from the vagina, rectum and external genital organs. The only true method of obtaining urine from females have an average portion of the collection of urine after processing selikih and small genital lips, urethra openings external antiseptic solution (3% solution boron acid) and rozvodzhennya genital lips. In husbandly and boys before taking the middle portion of urine for the research, head prutnya, after the disqualification flesh, it should also handle antiseptic solution.

Clinical evaluation of qualitative change involves the interpretation of urine protheinuria. In doing so, students should know that content from 50 to 150 mg daily protein in the urine is considered normal, and this should not cause concern. It should be remembered that when makrogematurii and pyuria, pronyeinuria may be false, that is not related to kidney disease. The most frequent cause pathological protheinuria have kidney disease, which is observed in acute and chronic glomerulonephrynis if klubochki filtered through a large amount of blood plasma proteins. When urological diseases (pyelonephritis) protheinuria usually is false and quantitatively less pronounced than in glomerulonephrytis if urine is placed between 8 and 10 g protein.

Interpretation of the contents of leukocytes in urine allows draught determine the existence of

incendiary urinary tract. The contents of more than 3-6 leukocytes in sight when a large increase (400) may be rastsenennoe as pathological phenomenon. A smaller number of them are not off incendiary presence process because in a number of diseases (chronic pyelonephritis) pyuria is hidden. At issues students should fix their attention when examining the relevant pathology. In apparent leucocituria students trohsklyankovu designate a patient sample. In doing so, they instruct patients on the need to act early in urination collect urine for the first glass (a 30 ml), the middle portion - in other beaker, and the last - the third glass. The contents of leukocytes, as well as bacteria, in the first glass indicates urethritis. In the second glass placed all pathological elements prostate urine. Identification of pathological elements points to localize the pathologic process of higher bladder, that is, in the bladder, ureter or nyrkah. Raising the contents of leukocytes in the third portion of urine is characteristic of defeat prostaticheskoy part of the urethra or bladder. Leucocytes while caught in the urine during a sharp reduction шийкі act of urinating at the end.

When acronyms gematurii blood found in urine at the beginning of Act urination (inorody body, tumor urethra, urethritis). In total gematurii blood in the urine is placed throughout the act of urinating. When terminally gematurii source of bleeding is prostatichesky department urethra and bladder neck.

5. The plan and organizational structure of classes.

№ u / s main stages of classes, their functions and content. Educational levels in the whole assimilation. Funds training and supervision. Materials concerning the methodical providing visibility exercise control knowledge of those who learns. Term (in minutes. Or in%) of the total class time.

Control of entry-level knowledge.

The main stage:

Demonstration patients and parse stories disease.

The decision situational challenges.

Demonstration slides and rentgenogramm.

Final phase

Checking learning.

Summarizing and correction directions assimilation theme

Assessment of Knowledge and the announcement following topics classes.

- 6. Materials concerning the methodical maintenance classes.
- 6.1. Materials control for the preparatory phase of exercises: tests.
- 6.2. Materials methodical providing classes in basic phases: tables, slides, tests, disease history, rentgenogrammy, computed tomography images, the sick, negatoskop.
- 6.3. Materials control for the final phase of exercises: situational challenges.
- 1. The patient, 32 years, complains of severe pain in the right half of the abdomen, faintness. Twice there was blyuvannya. Fell ill two hours ago, if there is pain in the lumbar section of the law, which will soon shifted to the corresponding half of the abdomen. He was taken to a quiet acceptance of carriages quick medical aid. OBJECTIVE: body temperature 36.9? Since, the pulse 62 in 1 minute, rhythmically. The right half of the abdomen behind in the act of breathing. Symptom Pasternatskogo on the right side slabopozitivny. When palpation abdomen noted local pain in the right. Urination often, small portions. What diseases can think and what? What should immediately undertake a study to clarify the diagnosis?

- 2. Have complains that the child is 5 years during sleep. Objectively and urine in the study of pathological changes not identified. What is the name of the disease? Who it occurs in boys' Do girls? What mechanism of its occurrence?
- 3. In patients 23 years expressed помутнішання urine due to impurities leukocytes and bacteria, but an unknown incendiary localization process. What a simple and universally accessible method should be used?

What diseases and on the basis of symptoms that should differentiate the diagnosis uratnogo concretion. The names of dissolution uratnih stones.

The teacher serves as a consultant. When discussing the history, it is desirable that all have participated and gave their assessment.

### Developers:

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# Recommended literature. Basic:

- 1. S.P. Pasechnikov; Urology: textbook/ Ed. S. P. Pasyechnikova, S. A. Vozianov, V. N. Lesovy [and others]. View. 3rd Vinnytsia: New Book, 2019.
- 2. Pasechnikov S.P. Modern problems of urology: [manual]: doctor's guide/ S.P. Pasechnikov, V.I. Zaitsev. Kyiv: L-ry Health of Ukraine; 2017.
- 3. Stus V.P. Urology (practical skills for intern doctors) / V.P. Stus, S.P. Pasechnikov. Teaching and methodical manual. Dnipropetrovsk: Akcent PP LLC, 2016.
- 4. Sarychev L.P. Symptoms of urological diseases: method. rec. For teachers / L. P. Sarychev, S. M. Suprunenko, S. A. Sukhomlyn, Ya. V. Sarychev. Poltava, 2019.
- 5. O.V., Lyulko, O.F. Vozianov Textbook "Urology" 3rd edition. Thresholds Dnipropetrovsk. 2012 p.
- 6. "Urology (Methodical development of practical classes for students)" edited by Professor V.P. Stus, second edition, supplemented. / A.P. Stus, Moiseinko M.M., Fridberg A.M., Pollion M.Yu., Barannik K.S., Suvaryan A.L., Krasnov V.M., Kryzhanivskyi O.Yu. Dnipro: Accent LLC. 2018. 336c.
- 7. Urology: textbook for students. higher med. academic established: translation from Ukrainian publications / S.P. Pasechnikov, S.A. Vozianov, V.N. Lesovoy, F.I. Kostev, V.P. Stus, et al./ Ed. S.P. Pasechnikov Edition 2. Vinnytsia: Novaya Knyga, 2015. 456 p.: illustr.
- 8. Uro1ogy: textbook for students of higher medical education Institutions /S.P. Pasechnikov, S.O. Vozianov, V.M. Lesovoy (et at.); ed. by Pasechnikov. / S.P. Pasechnikov, S.O. Vozianov, V.M. Lesovoy (et at.) Vinnytsia: Nova Knyha, 2016. 400 p.
- 9. EAU Guidelines, edition presented at the 28th EAU Annual Congress, Milan 2021. ISBN 978-90-79754-71-7. EAU Guidelines Office, Arnhem, The Netherlands.

- 10. Alan W. Partin, Alan J. Wein, et. all Campbell Walsh Wein Urology, E-Book (12th ed.) 2020.
- 11. Omar M. Aboumarzouk Blandy's Urology, 3rd Edition 2019.
- 12. David Thurtle, Suzanne Biers, Michal Sut, James Armitage. Emergencies in Urology 2017. 4. Philipp Dahm, Roger Dmochowski Evidence-based Urology, 2nd Edition 2018.

#### Additional:

- 1. Boyko M.I., Pasechnikov S.P., Stus V.P. and others Clinical andrology // Doctor's guide "Androlog". K.: LLC "Library "Health of Ukraine", 2013. 222 p.
- 2. Sarychev L.P. Clinical anatomy and physiology of organs of the urinary and male reproductive system: method. rec. for teachers / comp. L. P. Sarychev, S. A. Sukhomlyn, S. M. Suprunenko. Poltava, 2019. 11 p.
- 3. Sarychev L.P. Symptoms of urological diseases: method. rec. for teachers / L. P. Sarychev, S. M. Suprunenko, S. A. Sukhomlyn, Ya. V. Sarychev. Poltava, 2019. 14 p.
- 4. Medical student's library. Urology. Edited by F.I. Kosteva. Odesa, 2004. 296p.
- 5. Atlas-guide to urology. Ed. A.F. Vozianova, A.V. Lulko Dnipropetrovsk, 2002.-T. 1,2,3
- 6. Urology / Ed. Prof. O.S. Fedoruk Chernivtsi: Bukovyna State Medical University, 2011. 344p.

#### **Information resources:**

University website https://onmedu.edu.ua

Library library.odmu.edu.ua

- 1. https://uroweb.org/
- 2. https://www.nccn.org/
- 3. https://www.auanet.org
- 4.https://www.inurol.kiev.ua/
- 5. https://www.souu.org.ua/