ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Urology of Nephrology

METHODICAL INSTRUCTIONS

of practical class for students

Lesson №11 Urolithiasis

Academic discipline “Urology”
Level of higher education: Second (Master’s)

Knowledge field: 22 "Health Care"

Specialty: 222 "Medicine"

Program of professional education: Medicine

Approved
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Class №11 Urolithiasis -2 h

2. THEME ACTUALITY.

The theme urgency is defined by series of important points:

Frequency of urolithiasis reaches 2 % in population, in urology departments to 25-30 % of patients with this pathology, operations on kidneys and upper urinary ways concerning urolithiasis spend at the greatest quantity of patients.

Among etiological factors which predetermine a lithogenesis of microlits and stones in kidneys and urinary ways an appreciable role exogenous (geochemistry грунтов and waters, an insolation and a temperature regimen, ecological influences, a saturation of foodstuff vitamins, trace substances and oth) and the general endogenous, caused by function or a pathology of endocrine system, a liver and other digestive organs, nervous system and to a skeleton. Without participation of hygienists, family doctors, gastroenterologists and doctors of many other specialities there can not be successful a primary preventive maintenance and metaphilactic an urolithiasis.

Clinical syndromes and urolithiasis complications, especially renal colic, acute pyelonephritis, ureterohydronephrosis, arterial hypertensia demand knowledge doctors of a wide range of medical specialities differential diagnostics and an acute management sick of an urolithiasis.

Last years frequency of occurrence of a hydronephrosis has essentially grown in connection with changes in a bionomics and a rhythm of a life of people that leads to growth of number of anomalies of development and diseases, is at the bottom of development of hydronephrotic transformation. The fact of untimely appealability of patients with an urolithiasis, oncologic pathology, benign hyperplasia of a prostate and damages of genitourinary organs is important also.

3. STUDY PURPOSES:

3.1. Overall aims:

To familiarise with modern knowledge:

- About etiological factors which can influence colloids and urine crystalloids;

- About pathogenetic mechanisms of a lithogenesis in kidneys and urinary ways;

- About special value of urodynamics, infections of urinary system and urine reaction in a primary and recurrent lithogenesis;

- About the reasons of occurrence and pathogenetic features of a hydronephrosis. - kinds of stones on a chemical compound, the form and the sizes, a locating;

- Clinical signs and their polymorphism depending on the size and a stone locating;

- Clinical picture of a renal colic;

- Ultrasonic, radionuclide and radiological inspection - possibilities and methods at different stones;
- Possible complications at an urolithiasis, methods of their prevention;
- Conservative and surgical methods of treatment urolithiasis and a hydronephrosis;
- Extracorporal lithotripsy, tool methods of treatment urolithiasis;
- Methods метафилактики lithogenesises in kidneys, a bladder.
- Etiological factors of development of a hydronephrosis;
- Classification of a hydronephrosis by stages;
- Semiology and clinical current urolithiasis and a hydronephrosis;
- Diagnostics, differential diagnostics and hydronephrosis treatment.

3.2. The *educational purposes:*

- To underline the contribution of the Ukrainian, Russian scientists and works of chair concerning an urolithiasis problem;
- To generate at students representation about necessity of deep studying of environment and an integrated organism of the patient;
- To develop clinical thinking at students concerning diagnostics, a choice of a method of treatment and dynamic observation over patient urolithiasis;
- To generate representation about necessity of the economical and least dangerous approach to diagnostics and treatment at urolithiasis;
- To underline fast scientific and technical progress in diagnostics and treatment of urolithiasis.

3.3 Specific goals:

- ***The nobility:***

1. - Kinds of stones on a chemical compound, the form and the sizes, a locating;
2. - Clinical signs and their polymorphism depending on the size and a stone locating;
3. - Clinical picture of a renal colic;
4. Ultrasonic, radionuclide and radiological inspection - possibilities and methods at different stones;
5. Possible complications at an urolithiasis, methods of their prevention;
6. Conservative and surgical methods of treatment urolithiasis and a hydronephrosis;
7. Extracorporal lithotripsy, tool methods of treatment urolithiasis;
8. Methods of methaphilactics of lithogenesises in kidneys and bladder.
9. Etiological factors of development of a hydronephrosis;
10. Classification of a hydronephrosis by stages;
11. Semiology and clinical current urolithiasis and a hydronephrosis;
12. Diagnostics, differential diagnostics and hydronephrosis treatment.

3.4 On the basis of theoretical knowledge on a theme:

- ***To seize techniques to (be able):***

1. To seize a technique of inspection of the patient (the anamnesis, survey of kidneys in three positions, a symptom Pasternatsky);
2. To be able to estimate laboratory researches of urine and a blood at sick of an urolithiasis;
3. To be able to estimate results survey and excretory urographies at sick of an urolithiasis and a hydronephrosis;
4. To seize technics of performance of blockade on Lorin-Epstein at a renal colic;
5. To be able to make the plan of inspection of the patient at suspicion on an urolithiasis and a hydronephrosis.

4. Materials to independent preparation (interdisciplinary integration).

Disciplines:	**The nobility**	**To be able**
1. Previous (disciplines which provide)...		

1. Normal human anatomy. 2. Topographical anatomy and operative surgery	Anatomy of kidneys and urinary ways. A kidney: the form, a structure, topography of retroperitoneal space and mutual relations with the next organs; Anatomy and topography of an ureter, feature of topography in pelvic area;	Kidney palpation in three positions
3. Histology and fetology:	Organogenesis of kidneys, urinary ways and man's organs.	-
4. Normal physiology	Functions of kidneys, urodynamics. A role of kidneys in an exchange of electrolytes.	-
5. Pathological physiology	The lithogenesis mechanism. Influence of a pathology of endocrine organs on an exchange of electrolytes	-
6. Biochemistry and medical chemistry	Inorganic urocherases at its acidic and alkaline reaction; urinary stones and their types.	-
7. Propaedeutics of internal illnesses.	Semeiology of diseases of kidneys and urinary	Kidney palpation in three positions. A symptom of

	ways	Pasternatsky. To treat the data of radiological and ultrasonic researches, clinical symptoms (complaints and the data of physical inspection) and laboratory signs of kidneys.

5. The THEME MAINTENANCE. **Employment substantive provisions.**

1. Stones are formed initially in kidneys, again - in an ureter. In a bladder they happen secondary.
2. The lithogenesis is promoted by disturbance of a passage of urine (an urethra stricture, a prostate adenoma, a prostate sclerosis, a hydronephrosis), and also tubulopathy, inherited nefrozo - and nephrit-like syndromes. To note a role of climatic factors, a food, structure of potable water, an avitaminosis, a pyelonephritis, hyperparathyreosis, etc.)
3. On structure stones share on oxalic, уратные, phosphatic, seldom meet cystine, xantine, albuminous.
4. Lithogenesis theories: kolloidno-kristalloidnaja and matrixes.
5. Role of pH of urine and an infection in a lithogenesis.
6. The main symptoms of is renal-stone illness: a pain (an aching, renal colic), a hematuria, a pyuria, leaving of stones with urine.
7. Urolithiasis complications:

   Chronic and acute pyelonephritis, bacteriemic shock, pyonephrosis, obstruction of an ureter with granular kidney development, acute and chronic insufficiency of kidneys, an acute ischuria, a cystitis.
8. Cystochromoscopy role in differential diagnostics of a renal colic with an appendicitis, an acute cholecystitis, intestinal impassability.
9. Stones happen roentgennegative and roentgenpositive.
10. For urate stones following features are characteristic:

- urate stones are not visualised on survey urogram.

- For their revealing it is necessary to execute экскреторную urography, a pneumopyelography;

- Acidic reaction of urine - pH is less 5,5;
- In urine - crystals of urinary acid or salt of urinary acid - lithates;
- Echotomoscopy.

11. X-ray investigation of patients with urolithiasis begin with a survey picture of urinary system. The excretory urography allows to tap localisation to a stone in urinary system: a pyeloectasis and a calicectasis - expansion pyelus and cups, in an ureter - hydronephrotic transformation, an index finger symptom.
12. Conservative methods of treatment sick of an urolithiasis (antispasmodics - Nospanum, Cystenalum, Baralginum, diuretic grasses). Chemolysis of urate stones. A role sanatorno-kurortnih factors.
13. Methods of cupping of a renal colic (a warm heater, a bath, introduction of spasmalytics and analgetics, blockade of a seed funicle on Lorin - to Epstein, an ureter catheterization).
14. Methods of operative treatment - absolute and relative indications to operation. Intervention kinds: a nephrectomy, a pyelolithotomy, a nephrostomy, an ureterolithotomy, extracorporal operations.
15. Not operative methods of treatment. Application of different extractors (a loop of Tsejsa, a basket of Dormia). A lithotripsy by means of apparatus "Lithate" of stones of a bladder. Crushing by a cystolithotriptor.
16. Chreskozhnye ways of crushing of stones of a kidney and ureter, kidney drainage at an obstructive pyelonephritis.
17. Advantages of new original methods of destruction of stones of kidneys by means of an extracorporal with great dispatch-wave lithotripsy, types of applied apparatus.
18. Principles and kinds of plastic operations at a hydronephrosis.
19. Surgical correction of an ureterohydronephrosis, technique of urheterocystoneoanastamosis, anti-reflux operations.

6. Materials of methodical maintenance of employment.

6.1.1. Questions for the control of initial level of knowledge.

1. Exogenous and internal causes of an aetiology of an urolithiasis.
2. Mechanisms of education (pathogenesis) of microlits - sand - stones in kidneys and urinary ways.
3. Chemical compound of stones.
4. The basic symptoms of illness.
5. Clinical signs of a renal colic.
6. Value and place in diagnostics of different diagnostic methods at UROLITHIASIS and a hydronephrosis.
7. Differential diagnostics of a renal colic from one of illnesses of group "acute abdomen".
8. Complications UROLITHIASIS and a hydronephrosis, their mechanisms.
9. Methods of conservative treatment and methaphilactic of urolithiasis. Chemolysis of stones.
10. Methods of tool treatment of stones of an ureter, bladder, dive.
11. Methods of surgical treatment of stones of different localisation and the sizes.
12. Classification, diagnostics and hydronephrosis clinic.
13. Surgical treatment at a hydronephrosis: organ-saving operations and a nephrectomy.
14. Sanatorium treatment of urolithiasis.
15. With great dispatch-wave lithotripsy, indications and method contraindications.

6.1.2. Tests of self-examination of initial level of knowledge.

Find one or the several true of the offered answers.

1) After a pyelolithotomy remains phosphaturia. The patient should recommend
   a) Health resorts of Yalta, Sochi
   b) *Martsialnye mineral waters, waters the North Caucasus
   c) Borzhomi, Dzhermuk
   d) Health resorts of the general type in a midland of Russia
   e) Bajram-ali
2) After excision of an oxalic stone remains oxaluria. The patient should recommend a resort therapy
   a) *Zheleznovodsk, Truskavets
   b) Borzhomi, Dzhermuk

c) Martsialnye mineral waters, Narzany

d) Bajram-ali

e) High-mountainous health resorts

3) After dissolution уратного a kidney stone the uraturia remains. The patient should recommend a resort therapy

a) Zheleznovodsk, Truskavets

b) Narzans, Martsialnye mineral water

c) *в) Bajram-ali

d) Health resorts of the general type of a midland of Russia

e) Yalta, Sochi

4) At sick oxalic stones independently depart, remains oxaluria. She should recommend

a) Restriction of the products containing an oxalic acid (deciduous greens, chocolate, etc.)

b) Restriction of the products containing lemon acid (citrus)

c) Restriction of milk products

d) Augmentation of the products containing vitamins B6 and And and magnesium

e) *all listed

5) At the sick phosphatic stones depart and remains phosphaturia. She can recommend all listed, except

a) Restrictions of milk products

b) Augmentations of fiber, Adepses

c) Normal consumption of vegetables, fruit

d) *lemons

e) Vitamin A

6) At the sick depart urate stones and the uraturia remains. She can recommend all listed

a) Fiber restriction (meat to 1g on 1 kg of weight a day)

b) Is milk-vegetative diet

c) Restriction of a high-caloric diet

d) Fruit

e) *a) and c) are correct),

7) Before all at hydronephrotic transformation arise

a) Ectasia renal pyelus

b) *Ectasia pyelus or calyxes

c) Ectasia of calyxes

d) Flattening renal papillas

e) Narrowing of a renal artery

8) At a hydronephrosis most often there is a complication

a) Arterial hypertensia

b) Venous hypertensia

c) *A pyelonephritis

d) Is renal-stone illness

e) Hematuria

9) Hydronephrotic transformation at children becomes complicated a chronic pyelonephritis

a) In 50 % of cases

b) In 60 % of cases

c) In 70 % of cases

d) In 75 % of cases

e) * in 85 % of cases

10) Hydronephrotic transformation at adults becomes complicated a chronic pyelonephritis

a) In 30 % of cases

b) In 35 % of cases

c) In 45 % of cases

d) * in 55-60 % of cases

e) In 70-80 % of cases

11) The basic radiological methods of diagnostics of hydronephrotic transformation are all listed, except

a) excretory urographies

b) *cystographies

c) Renal arteriography

d) Retrograde pyelography

12) Methods of diagnostics of the "closed" hydronephrosis at a sharp depression of function of a kidney are

a) Renal arteriography

b) excretory urography

c) Retrograde ureterography

d) *г) percutaneous антеградная а pyelography

e) Dynamic scintigraphy

13) Methods of diagnostics of hydronephrotic transformation at renal insufficiency are

a) excretory urography

b) Infusional urography

c) Scanning isotope

d) Ultrasonic scanning

e) * it is correct a) and c)

14) At the hydronephrotic transformation caused with additional lower-polar vessel, complicated by an acute serous pyelonephritis, it is expedient

a) Operation on Culp de Weerd

b) Resection pyeloureteral a segment with pyeloureteroanastomosis

c) *Percutaneous nephrostomy

d) Operation on Foleju

e) Antevasal pyeloureteroanastomosis

15) For a unilateral alternating hydronephrosis are characteristic

a) Low relative density of urine

b) Intermittent back pain

c) эритроцитурия at a fervescence

d) Short-term polyuria

e) * it is correct b) and c)

16) In an out-patient department the patient of 37 years with complaints to the general delicacy, aching back pains on the right has addressed. Two hours has transferred the attack of a right-hand renal colic accompanied by rise in temperature, a fever with the subsequent fast depression of temperature, down-pour then and disappearance of back pains back. At the moment of survey the symptom Pasternatsky is weakly positive on the right, kidneys are not palpated, the emiction is not broken, urine transparent, a body temperature 37.2 C. The Most probable diagnosis

a) Condition after an attack of a right-hand renal colic

b) Acute purulent pyelonephritis

c) Pyelitis

d) Acute hematogenic pyelonephritis

e) *д) an acute serous pyelonephritis, a stone of the right ureter

17) In an out-patient department the patient of 37 years with complaints to the general delicacy, aching back pains on the right has addressed. Two hours has transferred the attack of a right-

hand renal colic accompanied by rise in temperature, a fever with the subsequent fast depression of temperature, down-pour then and disappearance of back pains back. At the moment of survey the symptom Pasternatsky is weakly positive on the right, kidneys are not palpated, the emiction is not broken, urine transparent, a body temperature 37.2 C. Tactics of the doctor in this case includes

a) Appointment of out-patient researches

b) *б) urgent hospitalisation

c) Hospitalisation in a planned order

d) Dynamic observation

e) Out-patient treatment appointment

18) The patient has arrived in an urology department concerning a right-hand acute serous pyelonephritis, a stone of the bottom third of ureter in the sizes 0.6x 0.8 tactics of the doctor see In this case provides the following sequence of application of medical actions: 1) intensive antibacterial therapy 2) operation - kidney audit, a nephrostomy 3) a catheterization of the right ureter 4) an ureterolithotomy 5) percutaneous nephrostomy

a) Correctly 1, 2, 3, 4 and 5

b) Correctly 1, 3, 4, 5 and 2

c) Correctly 2, 4, 5, 1 and 3

d) *It is correct 3, 4, 2, 1

e) Correctly 2, 4, 5, 3 and 1

19) The patient of 65 years has arrived concerning an acute purulent pyelonephritis, a stone pyelus a right kidney in the sizes 1.5 ¦ 2 the Heat with periodic cold fits within 10 days see. For the patient are necessary

a) Planned inspection

b) Ureter catheterization

c) Intensive antibacterial therapy

d) Remote lithotripsy

e) *Operation - kidney inspection, a pyelolithotomy

20) To the patient 32 years. Has arrived concerning an acute purulent pyelonephritis, a stone of the bottom third of right ureter. It is sick 10 days. On excretory urograms right kidney function is absent within 1.5 hours of observation. For the patient are necessary

a) Planned inspection for the purpose of specification of function of kidneys

b) Ureter catheterization

c) Ureterolithotomy

d) * urgent operation - right kidney audit, a nephrostomy

e) And intensive antibacterial therapy

f) Intensive antibacterial therapy

21) Sick of an urolithiasis make in an urological hospital to

a) 10 %

b) * 20 %

c) 45 %

d) 70 %

e) 80 %

22) The high case rate is observed by an urolithiasis in all listed regions, except

a) Uzbekistan

b) Turkmenistan

c) Armenia

d) * Western Siberia

e) Tajikistan

23) Etiological factors of an urolithiasis concern

a) Disturbance fosforno-kaltsievogo an exchange

b) Disturbance of an exchange of an oxalic acid

c) Disturbance of a purine exchange

d) Urinary infection (pyelonephritis)

e) * all listed

24) At alkaline reaction of urine can be formed

a) Urate (urate) stones

b) Cystine stones

c) *phosphatic stones

d) Oxalic stones

e) Alkaline reaction of urine does not influence character of stones

25) Development oxaluria is promoted by all, except

a) Deficiency in an organism of vitamin B6

b) *deficiency in an organism of vitamin D2

c) The nutrition containing excess of lemon acid

d) Chronic colitises

e) Citrate preparations (Blemarenum, uralit, etc.)

26) The hypercalcemia and hypercalcuria promote formation

a) Cystine stones

b) Urate (urate) stones

c) Oxalic stones

d) Phosphatic stones

e) *it is correct a) and c)

27) Disturbance of reabsorbtion in canaliculuses of kidneys of products of an exchange can lead to formation

a) Cystine urinary salts

b) Oxalic urinary salts

c) urate (urate) urinary salts

d) Phosphatic urinary salts

e) *any of the listed

28) To formation of nephroliths promote following anatomo-morphologic changes in kidneys

a) Chronic glomerulonephritis

b) *intrarenal pyelus and disturbance of a lymph drainage from a kidney

c) Venous plethora

d) Extrarenal pyelus

e) Renal arterial hypertensia

29) To the factors which are not influencing formation and growth of urinary stones, concern

a) *High concentration of sodium and creatinine in a blood

b) Urostasis

c) High viscosity of urine

d) Absence or low level of protective colloids in urine

e) High concentration oxalic, urinary acid, calcium in urine

30) For crystallisation oxalic stones optimum pH urine is

a) 3.5

b) *б) 5.5

c) 6.9

d) 7.5

e) 8.8

31) For crystallisation urate (urate) urinary stones optimum pH urine is

a) 3.5

b) *б) 5.5

c) 7.0

d) 7.5

e) 8.5

32) For crystallisation of phosphatic stones optimum pH urine is

a) 4.0

b) 5.7

c) *в) 7.1

d) 8.8

e) 8.9

33) Following local changes in urinary ways do not influence formation of urinary stones

a) Suture material (silk, lavsan, даксон)

b) Excess, ureter stricture, urostasis

c) Foreign matter (a drainage tube, a metal bracket, etc.)

d) *г) an ureter hypertonus, pyelus, calyxes

e) Ureter hypotension, pyelus, calyxes

34) Lithogenesis risk factors do not concern

a) Uraturia, оксалатурия

b) *б) the high maintenance of urea and a creatinine in a blood

c) The high maintenance in a blood and in urine of calcium, urinary and an oxalic acid

d) Leukocyturia, Er-uria, slime in urine

e) phosphaturia

35) All concern radiopaque types of stones listed, except

a) Sodium oxalatums

b) Natrii phosphases

c) The admixed

d) *г) lithates

e) Lithates and Sodium oxalatums

36) To roentgennegative types of stones concern

a) Natrii phosphases

b) Natrii phosphases and lithates

c) Lithates and Sodium oxalatums

d) *г) lithates (urate)

e) Lithates + Sodium oxalatums + Natrii phosphases

37) Pyelonephritis at an urolithiasis tap approximately

a) In 10 % of cases

b) In 30 % of cases

c) In 50 % of cases

d) *г) in 80 % of cases

e) In 98 % of cases

38) The pyelonephritis precedes urolithiasis development, that is is primary approximately

a) In 10 % of cases

b) *б) in 30 % of cases

c) In 50 % of cases

d) In 80 % of cases

e) In 90 % of cases

39) The pyelonephritis joins after formation of stones in kidneys (again)

a) In 10 % of cases

b) In 20 % of cases

c) *в) in 50 % of cases

d) In 80 % of cases

e) In 90 % of cases

40) Choose an optimum variant of sequence of actions in diagnostics of a prospective urolithiasis: 1) ultrasonic scanning of kidneys 2) the clinical analysis of a blood and urine 3) excretory urography 4) a jaderno-magnetic resonance 5) radioisotope nephroscintigraphy 6) a renal venography

a) 1, 6, 5, 3, 4, 2

b) 2, 1, 3

c) *в) 3, 4, 1, 6, 2, 5

d) 5, 4, 3, 2, 1, 6

e) 6, 1, 5, 4, 2, 3

41) In a choice of a method of operative treatment the renal arteriography is expedient

a) At a stone of a calyx of a kidney

b) *б) at corral a stone of a kidney of III degree

c) At a stone pyelus kidneys

d) At a sponge kidney and plural stones

e) In one case

42) The computer x-ray tomography is expedient

a) At corral a kidney stone

b) At stones of both kidneys (a calyx, pyelus)

c) At urate a stone pyelus kidneys

d) In all cases

e) *д) in one case

43) Retrograde уретеропиелография it is expedient

a) At a stone (Sodium oxalatum) pyelus, a kidney or an ureter

b) *б) at a stone (lithate) of an ureter, pyelus or calyxes

c) At a stone (Natrii phosphas) of a calyx, pyelus, a kidney or an ureter

d) In all cases

e) In one case

44) Radioisotope renography it is expedient

a) At corral a kidney stone

b) At stones of both kidneys

c) At a stone of an ureter or both ureters

d) *г) in all cases

e) In one case

45) Ultrasonic scanning of kidneys expediently

a) At a stone (lithate) of a calyx of a kidney (suspicion)

b) At corral a kidney stone

c) At an ureter stone

d) In one case

e) *д) in all cases

46) Survey and excretory urography are expedient

a) At stones of pyelus of both kidneys

b) At corral a kidney stone (both kidneys)

c) At a stone (lithate) of an ureter

d) *г) in all cases

e) Only and

47) Dynamic nephroscintigraphy it is most expedient

a) *At corral a kidney stone

b) At a stone pyelus kidneys in the size 5 ¦ 6 mm

c) At an ureter stone

d) At stones of both ureters

e) At the departed stone of an ureter

48) Radioisotope static scanning of kidneys expediently

a) At an ureter stone

b) At a stone pyelus kidneys in diameter not less than 5 mm

c) At stones of both ureters

d) In all cases

e) *д) in one case

49) At the patient independently depart уратные stones and salts. In diagnostics it is applicable necessary researches from the offered: 1) the general analysis of urine, urinary acid of daily urine 2) a transaminase of a blood 3) urinary acid of a blood 4) survey and excretory urography 5) ultrasonic research of kidneys 6) isotope scanning of kidneys and a liver

a) 1, 3, 4, 5

b) 1, 2, 3, 5, 6

c) 2, 3, 5, 6

d) *г) all kinds of researches

e) Everything, except 2

50) Independently oxalic stones and salts depart. Select a necessary variant of inspection

a) The general analysis of urine, daily urine and calcium, urine crops on flora

b) Calcium, blood serum phosphorus

c) Survey and excretory urography

d) Ultrasonic scanning of kidneys

e) *д) taken all together

51) Independently phosphatic stones and salts depart. Select a necessary variant of inspection

a) *All нижеперечисленное

b) The general analysis and urine crops on flora, pH urine, calcium of daily urine

c) Survey and excretory urography

d) Calcium, blood serum phosphorus

e) Ultrasonic scanning of kidneys

52) Stone of the bottom third of ureter of 3 mm, уретеропиелоэктазия (above a stone). Specify a correct method of treatment

a) Antispasmodics

b) Neostigmine methylsulfate subcutaneously

c) *в) water loads

d) UHF and an ureter electrical stimulation

e) Truly and

53) Domiciliary the renal colic, temperature is diagnosed for the patient 38.3 C within two days, cold fits. Your actions

a) To treat domiciliary antibiotics

b) To hospitalise in therapeutic unit

c) Urgently to hospitalise in an urological hospital

d) To measure arterial pressure

e) *д) it is correct) and

54) Bilateral stones of the bottom third of ureters, renal colic and acute purulent pyelonephritis on the right. A bacteriemic shock. Select a variant of the emergency help

a) Urgent nephrostomy, right kidney decapsulation

b) Intravenously corticosteroids, Polyglucinum, cardiovascular agents

c) *в) an urgent ureterolithotomy on the right

d) Catheterization of the right ureter

e) Originally, further and

55) Анурия within 24 hours. In the anamnesis отхождение urate stones and salts. A variant of the emergency help

a) Catheterization, Lasixum intravenously 100 mg

b) Catheterization of ureters

c) Urgent nephrostomy

d) Intravenously 1 l of a normal saline solution

e) *д) it is true) and

56) At urate (roentgennegative) a stone 25 ¦ pyelus kidneys without disturbance уродинамики treatment is the most expedient to begin 25 mm

a) With percutaneous чрезкожной nephrolithotomias

b) From a remote with great dispatch-wave lithotripsy

c) From a pyelolithotomy

d) *г) with hemolysisa

e) The intervention is not shown

57) At an oxalic stone pyelus kidneys 20 ¦ 25 mm without disturbance уродинамики are most rationally shown

a) *Remote with great dispatch-wave lithotripsy

b) Hemolysis

c) Pyelolithotomy

d) percutaneous a nephrolithotomia

e) The intervention is not shown

58) At a phosphatic stone pyelus kidneys 25 ¦ 20 mm without disturbance уродинамики, a chronic latent pyelonephritis the most expedient method of treatment are

a) Pyelolithotomy

b) The intervention is not shown

c) *в) a with great dispatch-wave lithotripsy

d) Hemolysis

e) Nephrolithotomia

59) At urate a stone pyelus 20 ¦ 18 mm, a chronic pyelonephritis in an active phase, педункулите, a periureteritis, a hydrocalycosis it is necessary to apply kidneys to treatment

a) With great dispatch-wave lithotripsy

b) Antibacterial therapy, intervention it is not shown

c) Hemolysis

d) percutaneous a nephrolithotomia

e) *д) a pyelolithotomy, an ureterolysis

60) At an oxalic stone pyelus kidneys 25 ¦ 30 mm, a chronic latent pyelonephritis, a hydrocalycosis are shown

a) hemolysis

b) With great dispatch-wave lithotripsy

c) The intervention is not shown

d) *г) a pyelolithotomy

e) percutaneous a nephrolithotomia without a contact lithotripsy

61) At an oxalic stone pyelus kidneys 15 ¦ 16 mm without disturbance уродинамики an optimum method of treatment are

a) hemolysis

b) *б) percutaneous a nephrolithotomia

c) Pyelolithotomy

d) The intervention is not shown

e) Sanatorium treatment

62) At the patient of 40 years corral a radiopaque stone pyelus intrarenal type without disturbance of urodynamics, a chronic latent pyelonephritis. To it it is shown

a) Pyelolithotomy, nephrostomy

b) Sectional nephrolithotomia, nephrostomy

c) hemolysis

d) percutaneous a nephrostomy, a nephrolithotomia

e) *д) an intervention not to make

63) At the patient of 40 years corral a radiopaque stone intrarenal pyelus, a hydrocalycosis, a chronic pyelonephritis in an active phase. Treatment includes it

a) Intervention not to make

b) *б) a nephrolithotomia (a sectional nephrolithotomia), a nephrostomy

c) percutaneous a nephrolithotomia

d) With great dispatch-wave lithotripsy

e) hemolysis

64) At the patient of 20 years corral roentgenpositive stone 2deg at extrarenal type pyelus, a chronic latent pyelonephritis, pedunculitis. An optimum method of treatment at it is

a) Intervention not to make

b) With great dispatch-wave lithotripsy

c) Sectional nephrolithotomia, nephrostomy

d) * Pyelocalicolitotomy (by Zhil - Vernetu), a nephrostomy

e) hemolysis

65) At the patient of 45 years corral a radiopaque stone of II stage extrarenal pyelus, a hydrocalycosis, a chronic pyelonephritis in an active phase. The patient should recommend

a) Intervention not to make

b) * back cross-section pyelocalicolitotomy, a nephrostomy, an ureterolysis

c) percutaneous a nephrostomy in a combination to a lithotripsy

d) hemolysis

e) Sectional nephrolithotomia, nephrostomy

66) At the patient sponge kidneys, plural stones, a chronic pyelonephritis in an active phase. It should execute

a) Nephrolithotomia and nephrostomy

b) Antibacterial therapy without an operative measure

c) *в) a with great dispatch-wave lithotripsy

d) hemolysis

e) percutaneous nephrolithotomia

67) At the patient of 35 years bilateral corralные the stones of kidneys localised in extrarenal pyelusx, moderate disturbance of urodynamics, a chronic pyelonephritis in an active phase. He can recommend

a) *Pyelolithotomy, nephrostomy on the one hand

b) Back cross-section, intrasinus pyelolithotomy, nephrostomy simultaneously from 2 parties

c) Operation it is not shown

d) Hemolysis

e) Bilateral percutaneous a nephrostomy

68) At the patient of 50 years a pyonephrosis on the right and corral a stone at the left. He should recommend

a) Pyelolithotomy and nephrostomy at the left

b) * a nephrectomy on the right

c) Nephrectomy on the right, a pyelolithotomy and a nephrostomy at the left it is single-step

d) With great dispatch-wave lithotripsy at the left

e) The intervention is not shown

69) At the patient of 50 years уратные stones of calyxes of both kidneys, a chronic latent pyelonephritis. To it it is shown

a) Operative treatment

b) With great dispatch-wave lithotripsy

c) * Hemolysis

d) percutaneous nephrolithotomia

e) Sanatorium treatment

70) At urate a stone of a bladder 30 ¦ and a prostate adenoma it is necessary to recommend 25 mm

a) Hemolysis, cystolitotomy and cystostomy

b) With great dispatch-wave lithotripsy

c) *г) cystolitotomy, an adenomectomy and cystostomy

d) The intervention is not shown

71) At urate a stone lohanochno-mochetochnikovogo a segment, an acute serous pyelonephritis are shown

a) Antibiotics, conservative treatment

b) Percutaneous nephrolithotomia

c) *в) a pyelolithotomy, audit kidneys (nephrostomy)

d) With great dispatch-wave lithotripsy

e) Ureter catheterization

72) At слабоконтрастном a stone (85 % a lithate + 15 % Sodium oxalatum are conditional) 15 ¦ 17 mm pyelus kidneys, a chronic latent pyelonephritis probably to recommend all listed, except

a) * Hemolysis

b) Pyelolithotomies

c) With great dispatch-wave lithotripsy

d) Percutaneous nephrolithotomias

e) All is true

73) At the patient of 50 years a stone a lithate (рентгенонегативный) 12 ¦ 8 mm of the top (average) third of the ureter, breaking уродинамику, a chronic pyelonephritis in a remission stage. He should recommend

a) Hemolysis

b) *б) an ureterolithotomy

c) Conservative treatment

d) Ureterolitoextraction

e) Lytotripsy on apparatus "Lithate-II"

74) At urate a stone 7 ¦ 10 mm in the bottom third of the ureter, moderately breaking urodynamics, a chronic latent pyelonephritis are shown

a) Hemolysis

b) Ureterolitoextraction

c) *в) an ureterolithotomy

d) Intervention not to make

e) Sanatorium treatment

75) At an oxalic or phosphatic stone 12 ¦ in an average third of ureter (the kidney functions) it is possible to recommend 7 mm

a) Hemolysis

b) With great dispatch-wave lithotripsy

c) Ureterolithotomy

d) *г) it is correct) and

e) Ureterolitoextraction

76) At the patient of 20 years a stone Sodium oxalatum 5 ¦ 8 mm of the bottom third of ureter with moderated ureteroectasy. To it it is shown

a) Ureterolitoextraction

b) Ureterolithotomy

c) Conservative treatment within 1 month

d) *г) it is possible) and

e) Probably and

77) At the patient of 25 years stones of the bottom third of both ureters in the size 12 ¦ 6 mm and moderated ureteroectasy. He should recommend

a) To continue conservative therapy

b) Ureterolitoextraction it is single-step from 2 parties

c) Ureterolitoextraction on the one hand

d) *Ureterolithotomy single-step from 2 parties

e) Percutaneous nephrostomy from both parties

78) At sick 40 years a stone Natrii phosphas 5 ¦ 10 mm of the bottom third of ureter, within 4 months a moderate ureterectasia. To it it is shown

a) Ureterolithotomy

b) *б) уретеролитоэкстракция

c) With great dispatch-wave lithotripsy

d) Hemolysis

e) Conservative treatment to continue

79) At a stone in уретероцеле in the sizes 12 ¦ 12 mm and not broken уродинамике are the most expedient

a) Intervention not to make

b) Excising transvesically of ureterocele

c) *Transuretral resection of ureterocele with an electroknife (coagulator) on ureteral catheter

d) With great dispatch-wave lithotripsy

e) Ureterocystoneostomy

80) At the patient of 45 years plural stones in an expanded bottom calyx, its neck is narrowed, a thickness of a parenchyma of the bottom pole of a kidney to 4 mm. Kidney function is kept. He should recommend

a) Intervention not to make

b) Nephrolithotomia

c) Pyelolithotomy

d) *г) a resection of the bottom pole of a kidney

e) Nephrectomy

81) At the patient of 55 years plural stones of a kidney, a chronic pyelonephritis in an active phase, again a contracted kidney, an arterial hypertensia within 2th years. To it are shown

a) Antiinflammatory, hypotensive therapy it is out-patient, long

b) Pyelolithotomy, nephrostomy

c) *Percutaneous nephrostomy

d) Nephrectomy

e) With great dispatch-wave lithotripsy

82) At a stone of pyelus of kidney 20 ¦ 25 mm and the bottom third of ureter from the same party in the size 14 ¦ 8 mm, kidney function it is kept, a chronic pyelonephritis in an active phase it is shown

a) Long antibacterial and spasmolytic therapy

b) Ureterolitoextraction+ a pyelolithotomy

c) With great dispatch-wave lithotripsy

d) Pyelolithotomy and ureterolithotomy from one cut on Izraelju

e) *Ureterolithotomy and a pyelolithotomy from 2 cuts

83) At a stone pyelus kidneys, a kidney anthrax, the heat of a body expressed to an intoxication, suspicion on a sepsis follows

a) To prescribe intravenously and endolymphatic antibiotics, detoxicating

b) *б) to execute an urgent nephrectomy

c) To execute an urgent pyelolithotomy, anthrax excising, a nephrostomy

d) To make an ureter catheterization, conservative therapy

e) To execute percutaneous nephrostomy

84) At a stone of the top third of the ureter, complicated by an acute purulent pyelonephritis, it is necessary to recommend

a) *Ureterolithotomy, nephrostomy and kidney decapsulation

b) Ureter catheterization, conservative therapy

c) Conservative treatment: intravenously or эндолимфатически antibiotics of a wide spectrum of action

d) Truly and

e) Nephrectomy

85) At a stone of the bottom third of ureter 5 ¦ 4 mm, complicated by an acute serous pyelonephritis, it is shown

a) Ureterolithotomy

b) Nephrostomy and kidney decapsulation

c) *в) an ureter catheterization, antibiotics of a wide spectrum of action

d) Ureterolitoextraction

e) It is interconvertible, and

86) At a stone 25 ¦ 20 mm and pyelus the admixed type it is most expedient

a) *Back cross-section intrasinus pyelolithotomy

b) Forward cross-section pyelolithotomy

c) The bottom longitudinal pyelolithotomy

d) The top cross-section pyelolithotomy

e) All methods are interconvertible

87) At corral a stone of II stage with diffusion on a neck of the top and bottom calyx of a kidney, extrarenal pyelus it is possible to apply

a) Back longitudinal pyelolithotomy

b) *б) back cross-section intrasinus пиелокаликолитотомию on Zhil - Vernetu

c) Sectional nephrolithotomia

d) Anterior longitudinal pyelolithotomy

e) All methods are interconvertible

88) At performance of a pyelolithotomy, a nephrolithotomia apropos corral a kidney stone it is necessary to apply

a) *Nephrostomy

b) To sew up pyelus tightly without a nephrostomy

c) Pyelostomy

d) Circular (ring) nephrostomy

e) All methods are interconvertible

89) At stone excision in pyelus and calyxes salts, a detritis are found out. It is necessary to execute

a) Circular nephrostomy

b) *б) a nephrostomy

c) Pyelostomy

d) To take in лоханку tightly

e) All methods are interconvertible

90) During a pyelolithotomy and a nephrolithotomia there was an appreciable bleeding. In this case it is necessary to execute

a) Introduction in лоханку and absorbable gelatin sponge calyxes

b) Pyelostomy

c) *Nephrostomy

d) Nephrectomy

e) To sew up лоханку tightly

91) At corral stone of III degree the pyelolithotomy, a nephrotomy and a nephrostomy is planned. A kidney locating high, XI and XII ribs long. Rational operative access will be

a) Lumbotomy on Fedorovu

b) Lumbotomy with transition in 9 межреберье

c) Lumbotomy with transition in 11 межреберье

d) Lumbotomy on Izraelju

e) *д) a lumbotomy on Nagamatsu

92) At a stone pyelus kidneys 25 ¦ 20 mm and a stone juxtavesical department of an ureter 12 ¦ 9 mm from the same party are shown

a) *Lumbotomy on Federovu and a cut on Pirogovu

b) Cut on Izraelju

c) Pararectal cut

d) Ureterolithotomy the first stage

e) Pyelolithotomy the second stage

93) At urate (рентгенонегативном) a stone of an average third of ureter, the size 15 ¦ 9 mm, breaking urodynamics, are shown

a) hemolysis

b) To establish ureteral catheter

c) * an ureterolithotomy

d) Spasmolytic therapy, ureter electrical stimulation

e) Nephrostomy

94) At a prostate adenoma, a stone (Sodium oxalatum) of a bladder 30 ¦ 30 mm are shown

a) hemolysis

b) cystolitotomy and cystostomy

c) *в) an adenomectomy, cystolitotomy and cystostomy

d) Transurethral cystolithotripsy

e) With great dispatch-wave remote lithotripsy

95) At the patient of 55 years a stone juxtavesical department of an ureter in the size 6 ¦ 9 mm, breaking an urodynamics. To it are shown

a) Conservative therapy

b) *б) an ureterolithotomy

c) ureterolytoextraction

d) Ureter catheterization

e) It is interconvertible and

96) At the patient of 55 years a stone of an average third of ureter in the size 6 ¦ 9 mm, breaking urodynamics. To it are shown

a) Conservative therapy

b) *б) an ureterolithotomy

c) ureterolytoextraction

d) Ureter catheterization

e) It is interconvertible and

97) At sick 30 years a stone of the bottom third of ureter 5 ¦ 9 mm, breaking urodynamics. To it are shown

a) Conservative therapy

b) Ureterolithotomy

c) *в) ureterolytoextraction

d) Ureter catheterization

e) It is interconvertible

98) At proof phosphaturia after a pyelolithotomy follows: 1) to prescribe a milk diet 2) daily to accept on 1 lemon 3) to prescribe antibiotics of a wide spectrum of action, uroantiseptics 4) to prescribe methionine, Acidum ascorbinicum 5) to use the nutrition rich with fiber (meat, fish), Adepses, oils 6) to prescribe diuretic vegetative agents 7) to prescribe citrate preparations (Magurlitum, Blemarenum, etc.)

a) All listed is correct

b) *б) everything is correct, except 1, 2, 7

c) Correctly everything, except 5 and 7

d) Correctly everything, except 1, 2, 3

e) Correctly everything, except 2, 5, 7

99) At proof oxaluria after triple delivery of oxalic stones it is necessary to recommend: 1) the nutrition rich with deciduous greens, bean, citron 2) the nutrition rich with calcium (milk products, a potato, eggs, etc.) 3) the nutrition containing vitamins of group In, And, magnesium 4) citrate preparations 5) magnesium oxyde, Sodium thiosulfatum of magnesium 6) vitamins B6, And 7) wheaten bran 8) to enlarge a diuresis to 2 l

a) All listed is correct

b) Correctly everything, except 2 and 5

c) *в) everything is correct, except 1, 2, 4

d) Correctly everything, except 3, 5, 6, 7 and 8

e) Correctly everything, except 1 and 5

100) At a proof uraturia treatment includes: 1) a milk diet 2) a vegetative diet 3) a meat diet 4) a diuresis of 2-2.5 l 5) a diuresis less than 1 l 6) citrate preparations 7) blockers of a purine exchange (Allopyrinolum, hypuric, etc.)

a) All listed is correct

b) Correctly everything, except 1, 3, 5

c) Correctly everything, except 1, 2, 3 and 4

d) Correctly everything, except 1, 3, 4 and 6

e) *д) everything is correct, except 3 and 5

101) At the patient bilateral radiopaque corralные stones of kidneys. Suspicion on a hyperparathyreosis. It is necessary to include in diagnostics plan

a) Research of a renin, blood Aldosteronum

b) Definition of calcium, phosphorus of blood serum and daily urine

c) Definition of a parathormone, blood calcitonin

d) Assay with a parathormone, skeleton scanning

e) *д) everything, except)

102) At urate stones of kidneys we survey a condition of a purine exchange

a) Skull roentgenography

b) *б) definition of urinary acid in blood serum and daily urine

c) Definition of an alkaline phosphatase of a blood

d) Truly and

e) Truly and

103) Oxalic recurrent stones of kidneys. We survey a condition фосфоркальциевого an exchange

a) Calcium and phosphorus definition in blood serum and daily urine

b) Roentgenography of fine tubular bones

c) Scanning of parathyroid glands

d) Definition acidic фосфатазы

e) * all is true, except d)

104) Ureterolitoextraction it is expedient

a) *At women with stones of the bottom third of ureter in the sizes to 6 mm, at an uncomplicated current

b) At men in the same situation

c) At stones of an average third of ureter of 5-6 mm at men and women

d) At bilateral stones of the top third of ureter

e) In all cases

105) At prerenal anuria (stones of ureters) the emergency help is shown

a) Intravenously big doses of Lasixum, infusional therapy

b) *б) a catheterization of ureters

c) Bilateral nephrostomy simultaneously

d) With great dispatch-wave lithotripsy

e) It is interconvertible and

106) At sick in a pyelus of right kidney it is an urate stone, in left - an oxalic stone, the sizes 25 ¦ 20 mm each. She can recommend

a) *Dissolution of urate stone on the right, the second stage - a with great dispatch-wave lithotripsy or a pyelolithotomy at the left

b) Single-step pyelolithotomy from 2 parties

c) Consistently pyelolithotomy with an interval in 2-3 months

d) Bilateral with great dispatch-wave lithotripsy

e) Bilateral percutaneous nephrolithotomia

107) At the patient of 30 years bilateral corralные stones of kidneys, a chronic latent pyelonephritis. Pyeli of extrarenal type. He can recommend

a) Operative treatment is not shown

b) Single-step pyelocalicolytotomia, a nephrostomy from 2 parties

c) *в) a pyelolithotomy, a nephrostomy on the one hand, in 4-5 months - on the other hand

d) Bilateral with great dispatch-wave lithotripsy

e) Bilateral percutaneous nephrolithotomia

108) At a stone of the top third of ureter of 8 mm, an acute serous pyelonephritis it is necessary to apply

a) *Urgently ureterolithotomy, kidney audit

b) Urgently nephrectomy

c) Urgently percutaneous nephrostomy

d) The stent equipment in an ureter

e) To continue conservative, antibacterial therapy

109) At a renal stone 20 ¦ 20 mm, an acute serous pyelonephritis it is necessary to apply

a) Conservative therapy

b) *б) urgently pyelolithotomy, kidney audit, a nephrostomy

c) Nephrectomy

d) Percutaneous nephrolithotomia, a nephrostomy

e) With great dispatch-wave lithotripsy

110) At a renal stone 20 ¦ 20 mm, an acute purulent pyelonephritis it is necessary to prescribe

a) Antibiotics, corticosteroids, intravenous infusional therapy

b) *б) urgently pyelolithotomy, a nephrostomy, a kidney decapsulation

c) Urgently percutaneous nephrostomy

d) Ureter catheterization, pyelus

e) Interconvertible variants, and

111) At a stone pyelus, an acute purulent pyelonephritis, a bacteriemic shock it is necessary to prescribe

a) Urgently nephrectomy

b) Urgently pyelolithotomy, nephrostomy, kidney decapsulation

c) Ureter catheterization

d) * antishock therapy, corticosteroids 1-2 r, intravenous infusional therapy, etc., after deducing from a shock - operative treatment or an ureter catheterization

e) Interconvertible variants, and

112) At urate kidney stone, an acute serous pyelonephritis it is necessary to apply

a) Stone dissolution in a combination to antibacterial therapy

b) The stent equipment in an ureter

c) percutaneous nephrolithotomia

d) With great dispatch-wave lithotripsy

e) * an emergency pyelolithotomy, kidney audit

113) At fine stones of both ureters, анурии 20 hours should be applied

a) Intravenously Lasixum, infusional therapy

b) Bilateral nephrostomy

c) * a catheterization of ureters

d) Bilateral percutaneous a nephrostomy

e) Bilateral emergency ureterolithotomy

114) At a stone of an ureter of a unique kidney of 5 mm, анурии it is necessary to apply 12 hours

a) Intravenously Lasixum

b) Emergency nephrostomy

c) Percutaneous nephrostomy

d) *г) an ureter catheterization

e) Interconvertible variants, and

115) The ureter stone, renal colic, acute serous pyelonephritis is diagnosed for the patient in an out-patient department. He should recommend

a) To continue antibacterial, spasmolytic therapy domiciliary

b) *б) urgently to hospitalise in an urological hospital

c) Ureter catheterization in an out-patient department

d) Antishock therapy профилактически

e) Interconvertible variants, and

116) At sick 30 years bilateral stones, a chronic pyelonephritis, again contracted kidneys, an uremia. She can recommend

a) *Hemodialysis, in the long term bilateral nephrectomy and kidney transplantation

b) Pyelolithotomy, nephrostomy consistently from 2 parties

c) Infusional anti-azotemic therapy

d) Catheterization of ureters

e) Percutaneous nephrostomy

6.2. *The information necessary for formation of knowledge and abilities can be found in textbooks:*

The basic: MATERIALS FOR SELF-CHECKING OF QUALITY OF PREPARATION.

1 Vozianov AF , tube O. Urology : Textbook - 2 ed . , Pererobl . and add. - D. Dnieper - VAL, 2017. - 830 p.

2. Vozianov SO, Gzhegots'kyi MR , Shulyak OV Petrishin JS, Mysakovets AG, AA Story Urology: textbook Lviv : World 2017, 304 p.

3. Pasechnykov SP, Mitchenko M., A. Glebov Ciprofloxacin in the treatment of urinary tract and male genitalia / / zdorovja men. - 2018 . - № 1. - S. 128 - 134.
4.Urology (practical skills for interns).Study guide /ed. by V.P.Stus and S.P. Pasechnikov / Dnipro: LLC «Accent PP», 2017.-282 p.)
5.Urology:S.P.Pasechnikov,V.M.Vozianov,V.M.Lesovoy end. By.S.P.Pasechnikov.-Vinnytsia:Nova Knyha,2016.-400p.
6. European Association jf Urology Guidelines. 2010 edition.

A.Vopros for self-checking

1. Definition of diseases "hydronephrosis" and "hydronephrotic transformation".
2. Will count etiological factors of a hydronephrosis.
3. Hydronephrosis classification.
4. Name the basic symptoms of a hydronephrosis.
5. Count the basic tool research the receptions applied to diagnostics of a hydronephrosis.
6. Count names of operations which are carried out for hydronephrosis liquidation.
7. What forecast concerning recover at a hydronephrosis.

B.Testy for self-checking with standards of answers.

1. The sick had sharp pains in the right half of stomach with иррадиацией in a loin, genitals, a frequent emiction. A stomach a little поддут, moderately painful in hypochondrium on the right. A symptom Pasternatsky positive on the right. What preliminary diagnosis?

a. * a right-hand renal colic.

b. An acute appendicitis.

c. An acute cholecystitis.

d. Acute intestinal impassability.

e. An acute pancreatitis.

1. The patient of 32 years. Throughout last month attacks of a right-hand renal colic, subfebrile fever which were weakened after injections of spasmolytics and analgetics three times became perceptible. One days later after a pain attack in the right lumbar site the body temperature has raised to 39C, the fever was observed. Objectively: slightly enlarged, painful right kidney is palpated. A symptom Pasternatsky positive on the right. What most probable pathology which predetermines a similar clinical picture?

a. * Stone of the right ureter
b. Chronic primary pyelonephritis in an exacerbation phase
c. Acute cystitis
d. Bladder stone
e. Cystalgia

2. Brigade СМП is caused to sick 35 years. The patient complains of sharp pains in the field of a loin with irradiation in an inguen. The patient keeps for the sick party, groans, cannot find to itself a place. Sharp delicacy, dryness in a mouth, a nausea becomes perceptible. At a palpation - sharp morbidity of the right half of area of a loin. A symptom Pasternatsky sharply positive. In urine - a gross hematuria. What most a plausible reason of an acute hematuria?

a. * The urolithiasis complicated by a renal colic
b. Bladder tumour
c. Acute glomerulonephritis
d. Extrauterine pregnancy
e. Spontaneous abortion

3. The patient of 34 years is hospitalised in a hospital with complaints to strong paroxysmal pains in the right site of a stomach which irradiate in an inguen, the right hip, sexual labiums. Most possibly the attack of a renal colic is caused:

a. * Stone of the bottom third of ureter
b. Urethra stone
c. Stone of the bottom bowl of a right kidney

d. Bladder stone
e. Bladder papilloma on the right party of a triangle of Leto.

4. Sick 36 years throughout last week repeatedly have a link sided renal colic. Has arrived in an urology department. A left kidney palpation painful, the symptom Pasternatsky is positive. Spasmolytics and analgetics a pain have reduced slightly. According to ultrasonic the expressed dilatation of an ureter. Specify optimum further tactics of treatment.

a. * Emergency catheterization of an ureter or percutaneous nephrostomy.
b. Repeated introduction of Nospanum, Baralginum, Promedolum, Platyphyllinum, etc.
c. Novocainic blockade on Lorin-Epstein.
d. Reception tamsulosin (Omnic) inside.
e. Diclofenac introduction intramusculary.

5. Specify optimum tactics of treatment of the patient with an acute right-hand obstructive serous pyelonephritis, at which ureter was cateterized.

a. * Conservative treatment with the subsequent planned liquidation of obstruction.
b. Percutaneous nephrostomy with the subsequent planned liquidation of obstruction.
c. Open operation.
d. Transurethral a cylinder an ureter dilatation.
e. Уретеролитоэкстракция.

6. Sick 42 years had an acute sharp back pain at the left which extended on the left half of stomach, gave to an inguen, was accompanied by a nausea and vomiting. After a heat bath and reception of Baralginum the pain has disappeared. In the clinical analysis of urine - a hematuria, on ultrasonic of kidneys the stone in a left kidney is taped - 0,2 your diagnosis see?

a. * Urolithiasis
b. Acute pyelonephritis
c. Acute glomerulonephritis
d. Kidney tumour
e. Cystitis

7. The patient of 48 years, has arrived to an urology department with complaints to pains in hypogastriums, perineums, absence of an emiction throughout days, fervescences to 38,0, cold fits. At survey - pallor of a skin, pulse 90 for 1 minute, cardiac sounds rhythmical, clear, joint-stock company 130/90 mm Hg, in lungs - vesicular breath. The stomach is blown up, the liver, a lien, kidneys are not palpated. Percussion borders of a bladder on 3 sm below a belly-button. The symptom Pasternatsky is positive from both parties. Was ill one week ago when began to disturb pains in the right half of loin with иррадиацией on an ureter course in a perineum, рези at a frequent emiction, an urine discoloration on red-brown, a fever, cold fits. About 10 years 1-2 times for a year and delivery of concrements suffer an urolithiasis, chronic calcullous pyelonephritis with exacerbations. Your preliminary diagnosis?

a. * Obturation an urethra concrement
b. Acute renal insufficiency
c. Prostate cancer
d. Prostate adenoma
e. Acute prostatitis

V.Zadachi for self-checking with answers.

The patient In, 45 years, has addressed with complaints to absence of allocation of urine throughout 1,5 days. In the anamnesis - UROLITHIASIS, anamnesis of delivery of stones. Has some years ago transferred a nephrectomy at the left apropos of calcullous pyonephrosis. Throughout 5 days before development of the specified symptoms noted a right-hand renal colic. At survey - T-36,6. A palpation of a site of a projection of a right kidney the painful. What preliminary diagnosis, diagnostic and medical tactics?

The answer standard. At patient UROLITHIASIS, a stone of the right ureter, subrenal анурия. The patient requires in urgent hospitalisation in an urological hospital, a tool drainage of the top urinary ways on the lesion party - catheterizations of the right ureter or performance of percutaneous nephrostomies with the subsequent carrying out contrast pyeloureterography for definition of the reasons анурии.

Patient T, 24 years, complains of a back pain at the left, frequent and an urodynia throughout two days, a nausea. In the urine analysis - a proteinuria (0,099 g/l), Er-uria (60-70 cells in sight), pH

urine 5,8. The Body temperature 37.5C. The patient is examined by the gynecologist, the data for a gynecologic pathology is absent.

Your approximate diagnosis?

To prove the inspection plan.

At sick UROLITHIASIS a stone of the bottom third of right ureter. For carrying out differential diagnostics are rational for executing survey and экскреторную urography, ultrasonic inspection of kidneys and a bladder. At acknowledgement retention changes from outside kidneys the patient is subject urgent hospitalisation concerning an obstructive pyelonephritis for dynamic observation and a possible drainage of the top urinary ways.

7. MATERIALS FOR АУДИТОРНОЙ INDEPENDENT PREPARATION.

7.1. The list of educational practical problems which are necessary for executing during practical employment:

1. To seize a technique of inspection of the patient (the anamnesis, survey of kidneys in three positions, a symptom Pasternatsky);
2. To be able to estimate laboratory researches of urine and a blood at sick of an urolithiasis;
3. To be able to estimate results survey and экскреторной urographies at sick of an urolithiasis;
4. To seize technics of performance of blockade on Lorin-Epstein at a renal colic;
5. To be able to make the plan of inspection of the patient at suspicion on an urolithiasis and its complications.

9. Instructive materials for mastering by professional abilities, habits:

9.1 Techniques of performance of works, performance stages.

Rough card for formation of professional skills

Problem	Sequence of actions	Indicatings for performance
Blockade of a seed funicle on Lorin-Epstein	1. To lay the patient on a back	
	2. To prepare a surgery field	To soap and shave the right or left pahovo-pubic zone. To wipe a skin in this place alcohol.
	3. Define a place of introduction of a needle	After a palpation of the middle of a pubic bone and a verhne-forward arista of a basin it is necessary to spend conditionally between them a line; on border of the bottom and average third there is an injection point.
	4.приготовьте Novocainum of 0,5 % 100,0 and 2 syringes on 20,0	

	5.проведите an injection	5.1. Type Novocainum in 2 syringes, changing them. 5.2. In an injection point make an intradermal nyxis of 1-2 ml to “a lemon peel” 5.3. A syringe hold upright to a skin surface, move a needle more deeply, simultaneously entering Novocainum. 5.4. When will feel resistance апоневроза, cautiously pierce and deepen on 2-4 mm. Moving a needle, continue infiltration. 5.5. After a puncture of aponeurosis delay on itself the syringe piston to be convinced that there is no blood. 5.6. To inject into the inguinal channel of a solution of Novocainum of 60-80 ml. Extend a needle.

6.2.2. *Курация the patient*	1. Complaints	1.1. Character and pain localisation in a lumbar site, in a stomach, suprapubic area, in the field of a perineum. 1.2. Presence of a hematuria, urethremorrhagia. 1.3. Character of an emiction (A pollakiuria, an urodynia, feeling incomplete emptying of bladder, quantity of the allocated urine at each emiction and from the moment of the beginning of pains.)

	2. The disease and life anamnesis	2.1. The moment of the beginning of pains, their intensity, dynamics, irradiation. 2.2. Whether were in the past of disease of kidneys? What concrements departed? Whether there were operations? 2.3. To find out possible etiological factors of a lithogenesis (ekzo - and endogenous), ecological external and professional harmful factors. 2.4. To find out presence of complaints and diseases in the past of other organs.

	3. Objective research	3.1. The general condition of the patient, adequacy and behaviour, position of the patient. 3.2. To pay attention to a tongue condition, a pulse rate and level of arterial pressure. 3.3. At survey of a stomach to adhere to principles of survey of surgical patients with "acute abdomen" clinic 3.4. Special attention to give palpations of kidneys in three positions, presence of a symptom Pasternatsky. 3.5. For all men of advanced age survey of organs of a scrotum and manual rectal survey of a prostate is obligatory. 3.6. Macroscopical estimation of urine.
	4. Estimation of datas of laboratory	4.1. The general analysis of a blood 4.2. The urine analysis, reaction (pH) urine 4.3. Biochemical blood analysises: a glucose, urea, a creatinine, bilirubin, a fibrinogen, electrolytes.

	5. The analysis of X-ray inspections	5.1. On the survey roentgenogram of urinary system to estimate: quality of the roentgenogram, a skeleton condition, presence of artefacts at the expense of a contained gastroenteric tract; shades, suspicious on stones in a projection of a kidney, an ureter, a bladder; presence of phleboliths and обызвествленных lymphonoduses 5.2. On экскреторных урограммах: to find a contour of kidneys (nephrogram), to define function of kidneys, to outline a stone shade in ЧЛС, an ureter or a bladder (or suspicion on them), defects of filling, suspicious on a stone. 5.3. To pay attention to the information in late pictures or on infusional урограмму. 5.4. Retrograde ureteropyelography and its application at UROLITHIASIS.
	6. An estimation of tool methods	6.1. Ultrasonic, its possibilities. 6.2. Cystochromoscopy. 6.3. Radionuclide renography.

10. MATERIALS FOR SELF-CHECKING OF MASTERING BY KNOWLEDGE, ABILITIES, THE SKILLS PROVIDED BY GIVEN WORK.

Section 6.1.2 see

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Recommended literature.
Basic:

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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:

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Information resources:

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Library library.odmu.edu.ua
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