LECTURE COMPLEX

Discipline: «Urogenital system in pathology»
Discipline code: MPSP 3216
OP Title: 6B10115 "Medicine"
Amount of study hours/credits: 150 hrs. (5 credits)
Course and semester of study: 3rd year, 6th semester
Volume of lectures: 2

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The lecture complex is developed in accordance with the working curriculum of the discipline (syllabus) and discussed at the department meeting

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Lecture N 1

1. Topic: Methods of examining patients with urinary system pathology. Diagnostic value. Questioning patients with urinary system pathology. Data from physical examination methods of the urinary system. General examination: examination of the face, eyelids; examination of the lumbar region; assessment of the degree of kidney prolapse; palpation and percussion technique (tapping method) of the kidneys, percussion determination of the upper border of the bladder; auscultation - auscultation of the renal arteries.

2. Objective: To train students to identify risk factors, causes, clinical features and methods of examination of patients with diseases of the genitourinary system.

3. Lecture abstracts:

Complaints patients with kidney disease vary. The main complaints are: pain (headache, kidney and urinary tract pain, pain when sitting on urine), swelling, impaired urine output, blurred vision, fever, itchy skin.

Feeling of pain. In some cases, the patient has complaints such as headache, dizziness, and blurred vision. In acute and chronic nephritis, chronic pyelonephritis, primary and secondary nephrosclerosis, polycystic kidney disease, almost all of these complaints are caused by increased blood pressure. In acute and chronic glomerulonephritis, pyelonephritis, the lumbar region is affected. The mechanism of these diseases is mainly due to an increase in the kidneys in accordance with the hemostatic effect and tension of the outer membranes. Acute concomitant kidney diseases are characteristic, which begin with the color of the kidneys and spread along the urinary tract down the urinary tract. The mechanism of such a painful sensation is irritation of the nerve endings in the path of the ZPR when the stone moves along the urinary tract occurs due to the contraction of the smooth wall of the urinary tract. In diseases of the bladder (cystitis, tuberculosis, papillomatosis), the superciliary arch is painful.

One of the main complaints is a violation of urination. Its types are: polyuria, anuria, oliguria, pollakiuria, nocturia, isuria, dysuria, stranguria. The amount of urine excreted over a certain period of time is called diuresis. Under normal conditions, a healthy person's congenital diuresis is about 1-1.5 liters, a violation of diuresis is called dysuria. Polyuria is the presence of a daily diuresis of more than two liters. The causes of polyuria are divided into extramandibular and extramandibular.

Kidney related causes: 1) balanced stage of renal failure, 2) when the tumor returns.

Extrahepatic causes of polyuria: 1) diabetes mellitus; 2) diabetes mellitus; 3) when taking ureters.

Oliguria is the secretion of daily diuresis less than 500 ml. The causes of oliguria are associated with the kidneys and outside the kidneys.

Kidney-related causes: 1) acute nephritis; 2) edema stage of nephrosis; 3) acute renal failure.

Extra-maxillary causes: 1) with increased sweating (profuse sweating); 2) with a persistent hangover; 3) with bloating; 4) with tumors.

Anuria- is the cessation of urination. Anuria is an extramaxillary cause of renal and extramaxillary. Renal anuria occurs because the kidneys do not produce urine (in acute renal failure). Extrahepatic anuria is also known as ischuria. It occurs with obstruction of the urinary tract (stone, tumor, hypertrophy of the prostate gland).

Pollakiuria- frequent bowel movements. This is typical for inflammation of the bladder and larynx. Under normal conditions, sitting on urine occurs 4-7 times a day.

Nocturia-is the copious excretion of urine at night. Under normal conditions, the ratio of daytime diuresis to nighttime diuresis is 3:1. Nocturia, present in kidney disease, occurs in combination with polyuria.

Isuria is the release of urine into the same molcher every time during the day. Dysuria is difficulty, pain due to pain during urination.

Strianguria- is released with a feeling of urinary incontinence-fermentation, which is typical for inflammation of the bladder and urinary bladder.

Changes in urine color. Under normal conditions, the color of urine is pale yellow. The color of urine depends on its concentration, the content of substances in it. In the presence of bilirubin in the urine - greenish-brown color - in the presence of urobilin - reddish-brown color, some coarse (aspirin) are colored pale red,

The color of urine will also depend on the size. Urine is pale yellow with polyuria and dark yellow with oliguria. When blood is mixed with urine, its color becomes cloudy, white, like in meat slop, when pus is mixed. Deterioration of vision occurs due to narrowing of the artery of the fundus, edema of the retina. In diseases of pyelonephritis, pyelitis, cystitis, urethritis, the patient's temperature rises due to inflammation of the urinary tract.

History of the disease. In order to determine the development of kidney disease, it is necessary to urgently find out from the patient what diseases the flea was ill with. Often the cause of acute nephritis is inflammation of the upper respiratory tract, shingles. And chronic infections (tuberculosis, syphilis), chronic purulent diseases (lung abscesses, bronchiectasis, osteomyelitis) lead to the development of renal amyloidosis. Patients with mercury chloride, bismuth, iodine can get nephronephrosis.

History of the disease. It is necessary to find out from the patient what diseases the fleas suffered from: pyelitis, pyelonephritis, and also whether the diseases were acute nephritis, kidney stones complicated by polygraphy, scarlet fever, or not. It is necessary to ask women how the pregnancy period went, whether there were tumors or changes in urine during this period. It is very important for the doctor to know when a patient with kidney diseases suffers from a severe cold that affects the course or exacerbation of the disease.

Methods of physical research

Examination of the patient. During external examination of the patient, pallor and swelling of the skin are observed. The pallor of the skin layer occurs due to the suppression of blood vessels by the tumor bone and anemia (the formation of erythropoietin decreases).

In kidney diseases, swelling can be of varying degrees; from visible or imperceptible swelling, the tumor can affect the entire body en masse. A tumor that has spread throughout the body is called anasarca. Kidney cancer has a number of differences from heart cancer: 1) kidney cancer develops quickly, spreads quickly, heart cancer develops slowly and spreads slowly;

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4. Illustrative material:presentation.

5. Literature: indicated on the last page of the syllabus

6. Control questions(feedback):

1. What are the main complaints of diseases of the genitourinary system?
2. What should you pay attention to during a general examination of patients?
3. How is kidney palpation performed?
4. What information does palpation of the kidneys provide?
5. What other physical methods are used when examining patients?

Lecture N 2.

1.Topic: Leading clinical syndromes (dysuric, nephrotic, nephritic, hypertensive and renal failure) in the urinary system. Predisposing factors and causes leading to the development of dysuric, nephrotic, nephritic, hypertensive syndromes and (acute and chronic) renal failure. Classification. Clinical and diagnostic features.

2. Objective: Based on the integration of fundamental and clinical disciplines, train students in the basics of clinical examination of the genitourinary system in normal and pathological conditions, and diagnose pathological syndromes during physical and laboratory-instrumental examination of the patient.

3. Lecture abstracts:

Edema- of renal origin are in most cases very characteristic and easily distinguishable from edemas of other origins, in particular cardiac. They primarily occur not on the legs, but in places where the tissue is loosest - on the eyelids, on the face. Renal edema can quickly arise and increase and disappear just as quickly; in severe cases, they are usually more evenly distributed over the trunk and limbs (such general edema of the body is called anasarca). Not only the skin and subcutaneous tissue swell, but also the internal organs. Usually the liver swells and enlarges, however, in kidney diseases, the liver enlargement is proportional to the enlargement of other organs and is never as significant as in cardiac edema. A greater or lesser amount of fluid accumulates in the serous cavities: pleural, abdominal, in the pericardium. Edema can be determined by palpation. The presence of edema is also confirmed by a blister test.

Eclampsia (from the Greek eclampsis - outbreak, convulsions) is most often observed in acute diffuse glomerulonephritis, but can also occur during exacerbation of chronic glomerulonephritis, nephropathy of pregnancy. In the pathogenesis of eclampsia, the main role is given to increased intracranial pressure, edema of brain tissue and cerebral angiospasm. In all of the above diseases, eclampsia usually occurs during a period of severe edema and increased arterial pressure.

Renal failure (insufficientia renalis) is a pathological condition characterized by impaired renal function with delayed excretion of nitrogen metabolism products from the body and a disorder of water, electrolyte, osmotic and acid-base balance.

Uremia (from the Greek urina — urine and haima — blood) — uremia — severe intoxication of the body caused by total renal insufficiency. Acute uremia occurs in cases of poisoning with nephrotoxic poisons (mercury compounds, lead, carbon tetrachloride, barbiturates, etc.), transfusion of group-incompatible blood and massive hemolysis, shock conditions. Chronic uremia develops in the final stage of many chronic kidney diseases ending in nephrosclerosis: chronic glomerulonephritis,

In clinical practice, we often have to observe diseases that occur with kidney damage, mainly of a dystrophic nature. Such kidney damage was previously considered an independent type of renal pathology and was identified under the name "lipoid nephrosis". It was later found out that this group of kidney damage is not

Toxic kidney (syn.: acute nephrotic syndrome, acute nephrosis, nephronecrosis) is observed in acute infectious-toxic diseases such as typhus, malaria, influenza, poisoning with nephrotoxic toxins (mercuric chloride, carbon tetrachloride), transfusion of incompatible blood, massive burns and in some other cases.

Chronic nephrotic syndrome observed in chronic glomerulonephritis, malaria, sepsis, tuberculosis, collagenoses, diabetes mellitus, amyloidosis and some other diseases. In rarer cases, the cause of nephrotic syndrome cannot be determined immediately. However, in most cases, a detailed analysis of anamnestic data and a thorough examination of the patient make it possible to identify chronic glomerulonephritis, which resulted in nephrotic syndrome. Such forms of nephrotic syndrome are most often observed in childhood. Cases where the cause of dystrophic phenomena in the kidneys remains unclear are referred to as lipoid nephrosis.

4. Illustrative material: presentation.

5. Literature: indicated on the last page of the syllabus

6. Control questions (feedback):

1. What types of kidney failure do you know?
2. In what pathologies does acute renal failure develop?
3. What method can be used to identify the clinical picture of uremia?
4. What laboratory and instrumental studies are used to diagnose nephrotic syndrome?
5. How does renal edema differ from cardiac edema?