CHRONIC KIDNEY FAILURE.

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Abstract: Chronic kidney failure is a set of symptoms caused by irreversible destruction of the mass of active nephrons due to primary and secondary kidney diseases and causing homeostasis disturbances.

Key words: Chronic kidney disease, Uzbekistan, M.A. Sobirov, nephrology, Cabinet of Ministers.

Chronic kidney diseases are one of the urgent problems in Uzbekistan, as well as in the whole world, and are among the diseases of social importance due to the high mortality rate and large financial costs. It is common mainly among the working population. Its exacerbation is associated with the development of terminal kidney failure. This disease is often not diagnosed in time and not treated to the end. That is why the term "hidden killer" is used for this disease. Over the last 25 years, the death rate from chronic kidney diseases has increased by 135%. According to the information given by M.A. Sobirov, the chief specialist in nephrology of the Ministry of Health of the Republic of Uzbekistan, the number of patients with chronic kidney disease in the republic is 102,969, including chronic kidney failure. 20 thousand 414 people registered with 3 thousand 64 of them receive hemodialysis treatment. The number of people under the age of 18 is 53.

The regional indicator of this disease in the republic is 21.7 percent. Chronic renal failure (SBE) is a complication that occurs in both adults and children. The rapid development of pain depends on the etiological factor that caused the main disease that led to this complication, its type, morphological variants. Diagnosing SBK is not difficult: it is evaluated by the decrease in nitrogen excreting function of the kidneys based on the analysis of glomerular filtration. Clinical symptoms develop gradually and may not be observed for some time. This pathological process affects all organs and systems. Its symptoms: intoxication syndrome, anemia, uremic osteodystrophy, hypercorticism, polyserositis, endocrine changes (hyperparathyroidism, hyperaldosteronism, hyperinsulinemia, hyperestrogenemia), hemorheological disorders, dystrophic disorders of parenchymatous organs, water-electrolyte, protein, fat and carbohydrates. derailments in exchange. Treatment measures: In the treatment of patients with SBK, the main focus is on preventing the development and exacerbation of kidney failure. SBK therapy is divided into 2 stages: conservative and kidney substitutes (dialysis and transplantation). Treatment at the conservative stage consists in influencing the risk factors. An important component of therapy is diet correction, enterosorbents, correction of renal anemia, symptomatic treatment and administration of phosphate-binding drugs (calcium carbonate). Indication for renal replacement therapy – grade IIB – IIIA is selected when SBK develops. Based on the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 859 of October 23, 2017 "On approval of the Temporary Regulation on the procedure for kidney and (or) liver transplantation among close relatives" until this period

of 2019, 190 Kidney transplantation was performed on about 100,000 patients. 3 of them are minors.

When it comes to the prevention and treatment of the disease, first of all, we need to increase the medical culture of our people, to constantly and systematically instill in their minds that this disease leads to bad consequences and complications, and it is included in the group of diseases with a high mortality rate. In fact, every person should understand that his health, which is considered a priceless wealth, is important for him and his family members. Only then will he regularly undergo preventive examinations and will be able to detect serious diseases early and receive the necessary recommendations. Kidney failure is a pathological condition that occurs in various diseases and is characterized by a violation of all kidney functions. In this case, water, electrolyte, nitrogen and other types of exchange are lost. Acute and chronic kidney failure are distinguished.

• Classification of acute kidney failure by causes:

In the picture: A — prerenal kidney failure; B — postrenal kidney failure; C — renal kidney failure. Prerenal. This is due to impaired renal blood flow. Not enough blood gets to the kidney. As a result, the process of urine formation is disturbed, pathological changes occur in the kidney tissue. It occurs in about half of patients (55%).

- Renal. It is related to the pathology of kidney tissue. The kidney is adequately supplied with blood, but cannot produce urine. It occurs in 40% of patients.
- Postrenal. Urine is produced in the kidney, but it cannot come out due to an obstruction in the ureter. If the obstruction is only in the urinary tract, the function of the damaged kidney will be taken over by the healthy kidney kidney failure will not occur. This condition occurs in 5% of patients.

Prerenal

- Conditions in which the heart cannot perform its tasks and pumps less blood: arrhythmia, heart failure, heavy bleeding, thromboembolism of the pulmonary artery.
- Sudden drop in blood pressure: shock (sepsis) in gross infections, severe allergic reactions, overdosage of some medications.
 - Dehydration: severe vomiting, diarrhea, burns, excessive use of diuretics.
- Cirrhosis and other liver diseases: venous blood reflow is impaired, edema develops, blood supply to the cardiovascular system and kidneys is impaired.

Renal

- Poisonings: toxic substances in everyday life and industry, snake, insect bites, heavy metals, overdoses of some drugs. Entering the bloodstream, toxic substances reach the kidneys and disrupt their work.
- Massive breakdown of erythrocytes and hemoglobin: in incompatible blood transfusions, in malaria. It damages the kidney tissue.
 - Kidney damage by antibodies in autoimmune diseases, for example, myeloma.
- In some diseases, the kidneys are damaged by metabolic products, for example, by uric acid salts in gout.
- Inflammatory process in kidneys: glomerulonephritis, hemorrhagic fever with kidney syndrome, etc.

- Damage to the kidneys in diseases accompanied by damage to the renal vessels: scleroderma, thrombocytopenic purpura, etc.
 - Single kidney injury (if the second one does not work for some reason).

Postrenal

- Tumors of the prostate, bladder, other organs in the small pelvis.
- Damage to the urinary tract during surgery or accidental ligation.
- Urinary tract obstruction: possible causes are thrombosis, pus, stones, birth defects.
- Disturbance of urination as a result of taking certain drugs.
- Congenital and hereditary kidney diseases.
- Kidney damage in chronic diseases: gout, diabetes, urolithiasis, obesity, metabolic syndrome, liver cirrhosis, systemic lupus erythematosus, scleroderma, etc.
- Various diseases of the urinary system in which the urinary tract is gradually blocked: urolithiasis, tumor, etc.
 - Kidney diseases: chronic glomerulonephritis, chronic pyelonephritis.
 - Incorrect use of drugs, overdose.
 - Chronic poisoning with various toxic substances.

Symptoms of acute kidney failure depend on its stage:

- Initial stage;
- Reduction of daily urine volume to less than 400 ml (oliguria stage);
- Stage of recovery of the amount of urine (polyuria stage);
- Complete recovery stage.

Initial. At this stage, kidney failure is not yet present. The patient is disturbed by the symptoms of the main disease. But the kidney tissue has started to deteriorate.

Oliguria stage. Renal dysfunction increases, urine volume decreases. As a result, harmful substances of the metabolism remain in the body, the water-salt balance is disturbed.

Symptoms:

- Decrease in the daily volume of urine to 400 ml;
- Weakness, inhibition;
- Decreased appetite;
- Nausea and vomiting;
- Tightening of muscles (caused by a violation of the amount of ions in the blood);
- Panting;
- Acceleration of heartbeat;
- Arrhythmias;
- Stomach ache;
- Some patients develop stomach ulcers and gastrointestinal bleeding;
- Infection of the urinary system, respiratory system, abdominal cavity against the background of weakening of the body.
- This stage of acute kidney failure is considered the most severe and can last 5-11 days.
- Polyuria stage. The patient's condition normalizes, the amount of urine increases more than usual. Dehydration of the body and infection may develop at this stage.

- Full recovery. Final recovery of kidney function. It usually lasts 6-12 months. If most of the kidney tissue is destroyed in acute kidney failure, complete recovery will not occur.
- In the initial stage, chronic kidney failure is not manifested. The patient feels relatively well. Usually, the first symptoms begin to appear when the kidney tissue stops performing 80%-90% of its function. But until then, the disease can be diagnosed after passing the examination.
- General symptoms usually appear first: weakness, rapid fatigue, inability to work.
- Disorders of urinary excretion. During the day, it is formed more than necessary (2-4 l). Therefore, dehydration can develop. Frequent urination at night is noted. In the later stages of chronic kidney failure, the amount of urine decreases sharply this is a bad sig
 - Nausea and vomiting.
 - Muscle tension.
 - Skin itching.
 - Feeling of dryness and bitter taste in the mouth.
 - Stomach ache.
 - Diarrhea.
 - Nosebleeds, stomach bleeding due to reduced blood clotting.
 - Bleeding from the skin.
- Susceptibility to infections. Such patients often suffer from respiratory infections and pneumonia.
- In the final stage, the situation worsens. Shortness of breath, bronchial asthma attacks occur. The patient may lose consciousness and fall into a coma.
- Symptoms of chronic kidney failure are similar to those of acute kidney failure. But they develop slowly.
- General urinalysis. In acute and chronic kidney failure, a general analysis of urine can reveal the following:
 - Changes in urine density due to impaired kidney function;
 - Having a small amount of protein;
 - presence of erythrocytes in urolithiasis, infections, tumors, wounds;
 - Leukocytes infections, autoimmune diseases.
- Bacteriological examination of urine. If kidney dysfunction is caused by an infection, the pathogen is identified during the study. In addition, this analysis allows to determine the infection caused by kidney failure, to determine the sensitivity of the pathogen to antibacterial drugs.
- General blood analysis. In acute and chronic kidney failure, the following changes are detected in the general blood analysis:
- An increase in the number of leukocytes, an increase in the erythrocyte sedimentation rate (ESR) is a sign of infection, inflammatory process;
 - Decrease in the amount of erythrocytes and hemoglobin (anemia);
 - Decreased platelet count (usually mild).

- Biochemical blood analysis. It helps to assess the pathological changes in the body due to kidney dysfunction. During the analysis, certain specific changes are determined depending on the form of kidney failure.
- Instrumental detection methods. Ultrasound examination (UTT), computed tomography (CT) and magnetic resonance imaging (MRT).

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These methods make it possible to examine the kidneys, their internal structure, renal calyces, ureters, urinary tract, and bladder. In acute kidney failure, these methods are used to determine the cause of the narrowing of the urinary tract. Ultrasound dopplerography. Blood flow in the renal vessels can be assessed during an ultrasound examination. X-ray of the chest. To detect certain respiratory diseases that may be the cause of kidney failure. Chromocystoscopy. In case of acute kidney failure, a substance is injected into the vein of the patient, which is excreted through the kidney and stains the urine. Then a cystoscopy is performed - examination of the urinary bladder with the help of a special endoscopic instrument inserted through the urethra. Chromocystoscopy is a simple, fast and reliable method of diagnostic methods often used in emergency situations. Kidney biopsy. The doctor takes a piece of kidney tissue and sends it to the laboratory for study under a microscope. Most often, a biopsy is performed with a special thick needle that is inserted through the skin into the kidney. Biopsy is used in doubtful cases, when it is not possible to make a diagnosis. Electrocardiography (ECG). It is carried out in all patients with acute kidney failure. It helps to identify disorders of the heart, arrhythmias. Zimnitsky test. During the day, the patient collects urine in 8 containers every 3 hours. Its density and volume are determined. The doctor can assess the functional state of the kidneys, the volume of urine during the day and at night.

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