



Prevention Measures of Chronic Renal Failure in Adults

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Annotation: Modern medicine manages to cope with most acute kidney diseases and restrain the progression of most chronic ailments. Unfortunately, about 40% of renal pathologies are still complicated by the development of chronic renal failure (CRF). Conducting and educating the population on preventive measures will significantly increase the prognosis of CRF among adults.

Key words: kidney failure, nephrons, prevention, healthy lifestyle, bad habits.

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Chronic renal failure is a pathological process in which the renal nephrons cease to function fully. The disorder is caused by a variety of diseases, the causes and localization of which are not always associated with the kidneys. The disease is characterized by the death of the structural tissue of the kidneys, which consists of nephrons and is responsible for the production and filtration of urine. Almost any chronic kidney disease without treatment can sooner or later lead to nephrosclerosis with kidney failure to function normally. That is, without timely therapy, such an outcome of any kidney disease as CRF is just a matter of time. However, cardiovascular pathologies, endocrine diseases, and systemic diseases can lead to renal insufficiency. The causes of chronic renal failure are:

- Congenital and hereditary diseases of the kidneys.
- Kidney damage in chronic diseases: gout, diabetes mellitus, urolithiasis, obesity, metabolic syndrome, liver cirrhosis, systemic lupus erythematosus, scleroderma, etc.
- Various diseases of the urinary system, in which there is a gradual overlap of the urinary tract: urolithiasis, tumors, etc.
- Kidney diseases: chronic glomerulonephritis, chronic pyelonephritis.
- Misuse, overdose of drugs.
- Chronic poisoning with various toxic substances.

At the initial stage, chronic renal failure is characterized by an asymptomatic course. The patient feels relatively normal. Usually, the first symptoms appear when 80-90% of the kidney tissue ceases to

function. But before that time, you can establish a diagnosis if you conduct an examination. Usually the first to appear are general symptoms: lethargy, weakness, increased fatigue, frequent malaise. The excretion of urine is impaired. In a day, it is formed more than expected (2-4 liters). This can lead to dehydration. There is frequent urination at night. In the later stages of chronic renal failure, the amount of urine decreases sharply - this is a bad sign. There may be nausea and vomiting, muscle twitching, skin itching, dryness and bitterness in the mouth, abdominal pain, diarrhea, nose, stomach bleeding due to a decrease in blood clotting, hemorrhage on the skin. Increased susceptibility to infections. Such patients often suffer from respiratory infections, pneumonia. At a later stage, the condition worsens. There are attacks of shortness of breath, bronchial asthma. The patient may lose consciousness, fall into a coma.

Preventive measures for chronic renal failure in adults are of great clinical importance. This prevents adverse outcomes in the population.

Prevention of the causes that cause the development of chronic renal failure, in particular the treatment of chronic diseases such as pyelonephritis (inflammation of the kidneys due to a bacterial infection), glomerulonephritis (bilateral kidney damage), urolithiasis (formation of stones in the kidneys and urinary tract).

Refusal of bad habits such as smoking, alcohol, drug abuse.

Rational and balanced nutrition.

Exclusion of unreasonable use of drugs (antibiotics, antidepressants and possible if treated early. For timely detection of the disease, patients at risk should periodically undergo an examination by an appropriate specialist and take tests to constantly monitor kidney function. If you start the correct treatment of a disease that can lead to chronic renal failure in a timely manner, then kidney function may not suffer, or at least its violation will not be so severe.

In addition to various prevention methods, lifestyle changes can slow the progression of chronic kidney disease. Control high blood pressure, blood sugar levels. Eat healthy foods (low-protein and/or low-salt foods). Lose weight, exercise. Start doing aerobic workouts 3 times a day for 30 minutes. Quit smoking. Avoid taking certain pain medications. There are risk factors that determine the possible development of chronic kidney disease (family history aggravated by chronic kidney disease, decreased volume and size of the kidneys, low birth weight or prematurity, low material status and educational level). There are risk factors that trigger the development of chronic kidney disease (the presence of diabetes mellitus, hypertension, autoimmune diseases, urinary tract infections, urolithiasis, urinary tract obstruction, toxic effects of drugs). Problems such as the toxic effect of microelements, amyloidosis, cardiovascular and osteoarticular diseases, and tumors are also possible. Risk factors leading to the progression of chronic kidney disease include a high degree of proteinuria or hypertension, as well as poor control of hyperglycemia and smoking. Clinical examination of chronic kidney disease is an early diagnosis of both the disease itself and the risk factors for its development. A number of factors can have a significant impact on the development and progression of chronic kidney disease in a given population. These include the prevalence of certain infections, the intake of a number of medications, alcohol and smoking, the state of the environment, climate, the nature and traditions of nutrition, the genetic characteristics of the population, etc. It is very important that many factors associated with the development of kidney dysfunction are at the same time « traditional" cardiovascular risk factors, including arterial hypertension, diabetes mellitus, age, male gender, dyslipidemia, obesity, metabolic syndrome, smoking.

On the other hand, the results of numerous studies indicate that cardiovascular risks, which are usually referred to as unconventional in cardiology (anemia, chronic inflammation, hyperhomocysteinemia, increased synthesis of asymmetric dimethylarginine, oxidative stress, activation of the renin-

angiotensin-aldosterone system, stress, hyperuricemia, natriuretic factors of various origins, etc.) are associated and most likely due to progressive kidney dysfunction.

Patients with identified chronic kidney disease should undergo regular medical supervision with the participation of a nephrologist. Each visit to a nephrologist or other specialist who sees a patient with chronic kidney disease should be accompanied by a recording of the current stage and albuminuria index in the medical records. This approach allows, with the accumulation of data on the course of chronic kidney disease, to more accurately assess the rate of its progression and plan the appropriate correction of the nature and volume of treatment and diagnostic measures, as well as predict the need for renal replacement therapy. Clinical examination and identification of risk factors are inseparable from measures for the primary prevention of chronic kidney disease. The basis of primary prevention is the dispensary observation of patients at risk, followed by the development of individual medical recommendations for the control of modifiable risk factors and monitoring their implementation. Another important factor that improves the survival rates of patients is the presence of a unified regional medical space for the provision of renal replacement therapy. In general, the reasonable and consistent use of all existing types of renal replacement therapy within the framework of an integrated approach avoids a potential lethal outcome in patients. The introduction of permanent outpatient peritoneal dialysis allows to increase the number of patients taken for renal replacement therapy in a planned manner by increasing its availability, subject to adequate pre-dialysis management and informed choice of the patient, reducing mortality, reducing the number of incident patients and mortality in the pre-dialysis period of chronic renal failure. Continuity in the use of continuous ambulatory peritoneal dialysis, hemodialysis and transplantation reflects the modern approach in operative nephrology and can significantly prolong the life of patients with terminal chronic renal failure. The use of innovative technologies of renal replacement therapy makes it possible to achieve a higher degree of correction of anemia, nutritional status, social rehabilitation and quality of life in patients with terminal chronic renal failure. It is necessary to develop a priority nutrition program to provide renal replacement therapy for patients with chronic kidney disease in order to prevent renal failure.

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