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STUDY OF PRACTICAL DIETARY RECOMMENDATIONS FOR CHRONIC KIDNEY DISEASES IN THE ELDERLY

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ABSTRACT

Various diseases lead to a deterioration in the functionality of all organs of the body in the elderly, including the kidneys and urinary tract, which is symptomatically manifested by a decrease in appetite, thirst, swelling of the legs, hypertension. Metabolic products accumulate in the body, metabolism is disrupted. It is possible to normalize it with the help of a diet, so it is an important part of the main therapy. Clinically, the deterioration of kidney function does not manifest itself in any way and can be perceived as part of the normal aging process. However, in some cases, regressive processes can become critical and lead to chronic renal failure. The study of diet is a measure of prevention of kidney diseases and exacerbations.

The main function of the kidneys is to filter and purify the blood. In addition, the kidneys play an important role in removing excess water, minerals and chemicals. It plays a huge role in maintaining the balance of water, minerals such as sodium, potassium, calcium, phosphorus and bicarbonate in the body. In patients with chronic kidney disease (CKD), the regulation of fluid and electrolytes may be impaired. For this reason, even normal consumption of water, salt or potassium can lead to serious disturbances in the balance of fluid and electrolytes. To reduce the load on the kidneys with impaired function, and to avoid fluid and electrolyte imbalance, patients with CKD should change their diet in accordance with the recommendations of a doctor and a nutritionist. Developing diets individually for each patient is a solution to complications of kidney diseases. The goals of diet therapy in patients with kidney diseases:

- Slow down the progression of chronic kidney disease and postpone the need for dialysis.
- Reduce the toxic effects of excess urea in the blood.
- Maintaining optimal nutrition to prevent weight loss.
- Reduce the risk of fluid and electrolyte imbalance.
- Reduce the risk of cardiovascular diseases.
- General principles of diet therapy in patients with CKD:
- Limiting protein intake to 0.8 g/kg of body weight per day.

- Consuming an adequate dose of carbohydrates for sufficient energy.
- Moderate fat intake. Limit the consumption of butter, sunflower oil.

For daily activities, the body of a healthy person needs calories, including to maintain temperature, growth and adequate body weight. Calories are supplied mainly by carbohydrates and fats. Usually, patients with CKD have a calorie requirement of 35 - 40 kcal /kg of body weight per day. If calorie intake is insufficient, the body uses protein to provide calories, which can lead to harmful effects such as eating disorders and increased waste. Thus, it is very important to provide sufficient calories for patients with CKD. It is important to calculate the calorie requirement to maintain the patient's ideal body weight, and not for the current weight. The weight may be lower or higher than ideal, especially with an existing nutritional disorder of the patient or in patients with diabetes mellitus. Carbohydrates are the main source of calories for the body. Carbohydrates are found in wheat, pasta, bread, cereals, rice, potatoes, fruits and vegetables, sugar, honey, cookies, cakes, sweets and drinks. Diabetics and obese patients should limit the amount of carbohydrates. It is best to use complex carbohydrates from cereals, for example, from whole wheat, unrefined rice and millet. They should provide most of the carbohydrates, while all other simple sugars should not make up more than 20% of carbohydrates. Fats are an important source of calories for the body and provide twice as many calories as carbohydrates and proteins. Unsaturated or “good” fats, such as sunflower oil, olive oil, peanut butter, rapeseed oil, safflower oil, fish and nuts are better than saturated or “bad” fats, such as fat in red meat, poultry, whole milk, butter, ghee, cheese, lard and others. Reduce your intake of saturated fats and cholesterol, as they can lead to heart and kidney disease. Protein is necessary for the repair and maintenance of body tissues, it also helps in wound healing and fighting infections. Protein restriction reduces the rate of loss of kidney function and thus delays the need for dialysis and transplantation. But avoid excessive protein restriction. Poor appetite and strict protein restriction can lead to poor nutrition, weight loss, lack of energy and reduced body resistance, which increases the risk of death. Lifestyle and habits strongly influence the nature of nutrition. In Russia, people like to eat meat, high-calorie food with a lot of animal fat and carbohydrates (mainly white bread). In India, people consume mainly plant-based food. Even those who eat non-vegetarian food do not do it all the time. In both cases, there is insufficient protein intake, established by medical recommendations in the amount of 1 g of protein per kilogram of weight per day. Therefore, although there is a restriction of protein to 0.8 g/kg for the late stages of CKD, this restriction will have little effect on the diet. Emphasis should be placed on improving the quality of consumed proteins. It is necessary to pay attention to the consumption of protein of high biological value (from 0.4 to 0.6 g / kg), which is contained in dairy products, cottage cheese, egg white, fish. The kidneys play an important role in maintaining the proper amount of water in the body by removing excess fluid from the urine. In patients with CKD, kidney function fades, and the volume of urine, as a rule, decreases. A decrease in diuresis leads to the retention of excess fluid in the body, which causes swelling of the face, swelling of the legs and arms, high blood pressure. The accumulation of fluid in the lungs causes shortness of breath. If this is not controlled, the situation can be life-threatening. To avoid fluid overload, the amount of fluid consumed must comply with the doctor's recommendations. The permitted fluid volume can vary for each patient and is calculated based on the diuresis and

condition of each patient. Patients without edema and with an adequate volume of urine can drink without restrictions. But the fact that patients with chronic kidney disease need to drink a lot of water to protect the kidneys is a misconception. Patients with edema and reduced urine volume should limit fluid intake. To reduce swelling, the volume of fluid that can be drunk per day should be less than the volume of daily urine. To avoid fluid overload or vice versa, deficiency, the volume of daily fluid is calculated as follows: the volume of urine for the previous day plus 500 ml. These additional 500 ml are approximately equal to the loss of fluid with breathing and sweat. It is recommended to limit salty, spicy and fried foods in your diet, as they increase thirst, which leads to an increase in fluid intake. The average salt intake is 6-8 g per day. Patients with CKD should take salt in accordance with the doctor's recommendation. Patients with CKD, edema and high blood pressure, as a rule, are recommended no more than 5 grams of salt per day. Food rich in sodium:

- Table salt, baking powder.
- Pickles, mushrooms, vegetables, sauces, canned food.
- Baking: cookies, cakes, pizza and bread.
- Products containing baking soda or baking powder.
- Waffles, chips, popcorn, salted peanuts, salted dried fruits: cashews, pistachios, canned food, etc.
- Cheese, butter.
- Fast food: noodles, spaghetti, pasta, cereals, etc.
- Vegetables: cabbage, cauliflower, spinach, radish, beetroot, etc.
- Lemonade and coconut water.
- Medications containing sodium bicarbonate, antacids, laxatives, etc.
- Meat products, especially delicacies, smoked meats, and offal: kidneys, liver and brain.
- Seafood: crabs, lobsters, oysters, shrimp, oily fish.

Limit salt intake, cook food completely without salt, it is better to add salt to the finished dish with a pre-measured allowed volume of salt from the salt shaker. This is the best option to ensure the consumption of the prescribed amount of salt in the diet. Cook vegetables with a high sodium content. The water must be drained. This can reduce the sodium content of vegetables. To make a low-salt diet delicious, you can add garlic, onion, lemon juice, bay leaf, tamarind pulp, vinegar, cinnamon, cardamom, cloves, saffron, green chili, nutmeg, black pepper, cumin, fennel, poppy seeds, etc. Potassium is an important mineral in the body. Potassium is necessary in the body for the proper functioning of muscles, nerves and pulse support. Usually, the level of potassium in the body is controlled by taking foods containing potassium and removing excess potassium in the urine. High potassium levels can cause severe muscle weakness or cardiac arrhythmias, which can be dangerous. With high potassium levels, cardiac arrest can occur, which can lead to sudden death. High potassium levels can be life-threatening without noticeable manifestations or symptoms ("silent killer"). To avoid serious consequences caused by high potassium, patients with CKD are advised to limit potassium in the diet.

Patients with kidney diseases suffer from insufficient intake of vitamins, due to a decrease in the amount of food consumed, a special cooking method to remove excess potassium and poor appetite. Some vitamins, especially water-soluble vitamins B and C, folic

acid are lost during dialysis. To compensate for insufficient intake or loss of these vitamins, patients usually require additional water-soluble vitamins and trace elements. High fiber intake is beneficial for CKD. So patients are recommended to take more fresh vegetables and fruits rich in vitamins and fibers. A strict diet or table No. 7 is prescribed to patients with chronic renal failure, nephrotic syndrome or glomerulonephritis. With other pathologies, excessive restriction of nutrition is not required. It is enough just to reduce the use of salt, spices, spicy seasonings and be sure to exclude alcohol. When preparing the menu, you need to remember that there is salt in semi-finished products and finished products of factory production, and in significant doses. Even bread belongs to this category. If you do not find a place where they sell pastries without salt, then you should learn how to bake it yourself. Of course, the increased salt content is typical for semi-finished meat products, smoked meats, homemade pickling, canned food, hard cheese, lightly salted fish. It is also forbidden to drink water with a high degree of mineralization. Conclusion. There are different ways to maintain remission of the disease, diet and doctor's recommendations will ensure the normal course of senility.

References:

1. Kucher, A. G. Problems of therapeutic nutrition in patients with chronic renal insufficiency / 1997.
2. Dagogo-Jack S. Screening, monitoring, prevention, and treatment strategies for chronic kidney disease in patients with type 2 diabetes. 2021.
3. Ramspek C.L., Verberne W.R., van Buren M., Dekker F.W., Bos W.J.W., van Diepen M. Predicting mortality risk on dialysis and conservative care: development and internal validation of a prediction tool for older patients with advanced chronic kidney disease. 2020.
4. Zhu Y., Qian Q. Protein nutrition and malnutrition in CD and ESRD // Nutrients. 2017.
5. Oner-Iyidogan Y., Gurdol F., Kocak H., Oner P., Cetinalp-Demircan P., Caliskan Y. Appetite-regulating hormones in chronic kidney disease patients. 1979.