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MEASURES TO BE TAKEN IN EARLY DIAGNOSIS OF CHRONIC KIDNEY DISEASE

Djumaev Bahodir Zayniddinovich.,Bakaev Erkin Sultanovich

Bukhara State Medical Institute named after Abu Ali ibn Sino

djumayev.bahodir@bsmi.uz., https://orcid.org/0009-0007-3711-7914,
baqoyeverkin4@gmail.com

Abstract. Chronic kidney disease (CKD) is a super-nosological concept that combines a complex of diseases with common pathogenesis, symptoms and outcomes. Pathology affects 13.4% of the population and is 3 times more common in people over 60 years of age than in patients of working age. The incidence of CKD in patients with heart disease is about 26%. Frequent occurrence, irreversible nature, difficulties in treatment and a significant impact on the quality of life of a person - all this determines the relevance of the problem in modern nephrology. Risk factors for the development of chronic kidney disease, in addition to kidney disease, are arterial hypertension, diabetes mellitus, atherosclerosis, obesity, metabolic disorders, especially high cholesterol and uric acid in the blood. There are simple and accessible methods for early diagnosis of kidney disease, but in the vast majority of patients the disease is detected at a terminal (final) stage, when the opportunity for effective treatment has already been missed.

Keywords. Chronic kidney disease (CKD), arterial hypertension, diabetes, atherosclerosis, obesity, metabolic disorders, Glomerular filtration rate (GFR).

Chronic kidney disease (CKD), including. Stages characterized by a persistent decline in glomerular filtration rate (GFR) and therefore associated with the worst long-term prognosis, are increasingly common in the general population, especially among the elderly. The results of large-scale epidemiological studies show that CKD is especially common in older people [1, 2]. Therefore, the relationship between CKD and aging has become the main theme of World Kidney Day 2020 [3].

The sharp increase in the incidence of CKD is primarily associated with the prevalence of common risk factors in the population (arterial hypertension, diabetes mellitus, obesity) [4]. A large population-based analysis of NHANES and KEEP, including a total of 32,555 subjects, and a 5% sample of the Medicaid database (1,236,946 cases) [5] found that a persistent decrease in GFR < 60 mL/min/1.73 m2 and/or albuminuria was significantly more common in people aged 80 years and older, and the number of comorbidities increased. In turn, the number of comorbidities associated with a decrease in estimated GFR increased, and this relationship was particularly pronounced in the elderly. The prognostic risk of SCC is largely due to the lack of complete diagnostic accuracy, especially when only one laboratory indicator characterizing the state of the kidneys is chosen as a guide. [6]

A 5-year follow-up of elderly and middle-aged adults (mean age 83 years) showed that when the initial creatinine level was > 1.1 mg/dL, the mortality rate was significantly higher than

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in individuals with a serum creatinine level < 1.1 mg/dL (66.7 vs. 34.2%, p = 0.004). The mortality rate, estimated by the value of endogenous creatinine clearance, on the other hand, did not differ significantly between groups differentiated by the initial level of creatinine, nor did there appear to be any differences in the rate of development of SCK, estimated by the values creatinine, urea concentration, and also GFR calculated using the MDRD formula. Therefore, the results of this study do not allow us to doubt that the presence of SCK significantly worsens the prognosis of patients, but indicate that focusing only on creatinineemia, making a diagnosis and predicting its course may not be entirely correct. Of course, the optimal methods for assessing GFR in the elderly require further refinement and standardization; one of the most promising is the calculation of this indicator using the SBK-EPI formula based on the results of determining serum creatinine and cystatin C levels [7].

It should be borne in mind that, all other things being equal, complications of almost any disease are most pronounced in elderly patients with SBK and their course is unfavorable. Thus, in particular, it was found that albuminuria and a decrease in estimated GFR in elderly patients with type 2 diabetes are independent predictors of frontal lobe dysfunction of the brain [8]. Elderly patients with SBK have a different worst blood pressure control: as they age, they The frequency of uncontrolled isolated systolic arterial hypertension, which is considered one of the most unfavorable prognostic forms of arterial hypertension, increases. The determining factors of uncontrolled arterial hypertension for this category of patients are also stages 4-5 SBK, obesity, and type 2 diabetes mellitus [9].

It should be noted that the leading role in the formation of chronic renal failure is somewhat different from those that play. In addition, the course and outcome of SBC in the elderly, as well as the factors determining them, are characterized by certain features, which, as a rule, lead to a significant deterioration in the prognosis, all other things being equal, including. kidney. Immunoinflammatory damage to the renal glomeruli, which is clinically manifested by the development of acute or chronic glomerulonephritis, is traditionally casuistically rare in the elderly. [9].

In general, membranous nephropathy is one of the most common types of paraneoplastic kidney damage, although it is often very difficult to obtain reliable evidence of the presence of a malignant tumor in a patient due to the impossibility of developing a specific and, at the same time, sufficiently detailed examination program. The results of one of the stages of the large GN-PROGRESS study [15], in which 240 patients with membranous nephropathy (24 of whom had a neoplastic lesion detected during kidney biopsy or within the first year after it) were included, show that this form of chronic glomerulonephritis is associated with a 9.8-fold increase in the incidence of malignant tumors in men and a 12.3-fold increase in women. In paraneoplastic membranous nephropathy, compared with primary nephropathy, a significantly higher intensity of infiltration of the renal glomerulus by inflammatory cells was also found. The presence of 8 or more inflammatory cells in the renal glomerulus reliably indicates the relationship between membranous nephropathy and malignancy: the sensitivity of this test is 92%, specificity - 75%. Patients with paraneoplastic membranous nephropathy were able to achieve a decrease in urinary protein excretion only after achieving remission of the neoplastic process. Predominantly IgG1 and IgG2 deposition in the renal glomeruli is also considered one of the possible signs of paraneoplastic membranous nephropathy. The formation of paraneoplastic glomerulonephritis is associated with the effect on the structures of the renal glomerulus of mediators (antibodies, pro-

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inflammatory and profibrogenic cytokines) produced by the tumor tissue itself or by immunocompetent cells in response to its growth [16, 17].

Usually, tumors are not found in the renal tissue. Most forms of primary glomerulonephritis are relatively rare in the elderly. The use of immunosuppressive therapy in elderly patients should be based, if possible, on the results of morphological examination of the kidney tissue obtained by biopsy. The complication rate of renal biopsy in the elderly is not higher than in the general population, but taking into account the contraindications to this procedure in patients over 60 years of age, it should be especially strict [18].

Currently, we can clearly state a trend towards an increase in the frequency of kidney biopsies in older patients [19]. The rate of deterioration of renal function in chronic glomerulonephritis in the elderly depends not only on its morphological variant, but also on the severity of renal failure, which is often aggravated by concomitant diseases. M. Washioet et al. (1994) analyzed the prognosis of 31 patients with poststreptococcal glomerulonephritis, seven of whom were over 55 years old. Unlike younger patients, most of them had arterial hypertension. Renal failure was noted in 4 of 7 patients, while renal function was preserved in all examined individuals under 55 years of age. Thus, chronic glomerulonephritis can develop in older people: among its morphological variants, membranous nephropathy predominates. The use of active immunosuppressive therapy in this category of patients should be clearly justified, both in connection with the maximum likelihood of adverse events associated with such treatment, and because of the high risk of malignant tumors, the development of which is often accelerated by the use of glucocorticosteroids and cytostatics.

One of the most common forms of chronic progressive nephropathy in the elderly and senile age is chronic pyelonephritis. In older people, purulent forms of this disease are often observed: in men, their frequency reaches 23.3%, in women - 15.9%. The purulent process in the kidneys can spread widely with the subsequent addition of sepsis and bacteremic shock, which can lead to death. The background of the development of chronic pyelonephritis is often obstruction of the urinary tract by a tumor or nephrolith [21].

Chronic pyelonephritis in the elderly and senile age is often not diagnosed or at least its severity is not adequately assessed, which is associated with the minimal severity of the disease and sometimes the absence of typical clinical manifestations of this disease - fever, pain in the lumbar region. These patients have identified a specific. "Cachectic" mask of chronic pyelonephritis in the elderly and senile age, a persistent decrease in body weight (up to cachexia) and anemia [21]. Another variant of chronic, mainly tubulointerstitial nephropathy, which is over 60 years old and is not recognized even at the stage of irreversible deterioration of renal function, is kidney damage caused by the abuse of non-narcotic analgesics and / or NSAIDs. The development of analgesic nephropathy is associated with long-term (at least a year) use of non-narcotic analgesics or non-steroidal anti-inflammatory drugs (NSAIDs) [22].

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It is clear that chronic kidney disease is mainly characteristic of patients with widespread atherosclerosis. its complex forms: until atherosclerotic lesions of the renal arteries are detected, patients often undergo acute myocardial infarction, including recurrent, transient ischemic attacks or cerebral stroke, as well as various angiosurgical interventions, including. coronary angioplasty. This disease is often detected during angiography, which is associated with a high risk of radiopaque nephropathy [21].

The presence of traditional risk factors - not only arterial hypertension, but also disorders of lipoprotein metabolism, type 2 diabetes, obesity and nicotine addiction, which are often observed in these patients - also determines the high probability of fatal cardiovascular complications in ischemic kidney disease. . In ischemic kidney disease, it is advisable to promptly eliminate iatrogenic factors that aggravate renal dysfunction - non-steroidal anti-inflammatory drugs, loop diuretics in large doses that cause relative hypovolemia, but primarily ACE inhibitors and angiotensin II receptor blockers. , often prescribed without proper control in elderly patients with arterial hypertension, which is considered to be incorrect [22].

It should be noted that it is not necessary to say that a significant improvement in the long-term prognosis can be achieved with the help of invasive treatment of atherosclerotic

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stenosis of the renal arteries. angioplasty with stenting, although the results of recent controlled clinical trials, in particular the CORAL study, have shown that with this intervention it is possible to reduce blood pressure and control a number of other parameters that directly or indirectly characterize blood pressure. prognosis [23, 24].

Treatment with SBK is associated with significant difficulties. They are the main group in which polypharmacy should be avoided, and it should always be remembered that even the prescription of clinically and pathogenetically justified drugs can lead to the most pronounced manifestations of adverse events. With the development of end-stage renal failure, the decision to initiate and select the optimal method of renal replacement therapy for this category of patients is often associated with significant difficulties. Not only the severity of CKD and the underlying disease, but also comorbidities - geriatric syndromes of a "general nature" (dementia, underweight), as well as a number of social features (difficulties in movement and transportation, decreased critical perception, the need for constant care outside medical institutions) significantly limit the implementation of a hemodialysis program in elderly patients [25].

The program is combined with hemodialysis, it is collected, including. and according to the results of controlled clinical studies, positive experience in conducting peritoneal dialysis in elderly patients: in particular, this method of renal replacement therapy allows them to avoid at least some of the problems that arise during the formation of blood vessels. maintaining activity [19]. A special problem of patients remains nutritional disorders, which often occur in this age group and with preserved renal function, but always significantly increase with the development of SBC. The term "protein-energy malnutrition" is also often used to designate the malnutrition syndrome in elderly patients with SBC, the program is aggravated by hemodialysis [20]. The main components of protein-energy malnutrition in the elderly patient undergoing hemodialysis are, first of all, an increasing deficit of muscle mass, activation of the acute phase inflammatory response syndrome, increased anemia, impaired phosphorus-calcium metabolism, and weight loss due to cognitive disorders. [11].

Correction of protein-energy malnutrition is also important for patients who, for various reasons, do not start hemodialysis. In this regard, the generally accepted recommendation of experts is to control the calorie content of food (30 kcal/kg/day for people over 60 years of age) and, if necessary, use energy and micronutrient supplements [21]. Currently, successful experience has been accumulated in the use of drugs of keto analogues of amino acids for the prevention and correction of protein-energy malnutrition in patients with SBC. At the same time, the use of a complex of keto-analogs of amino acids in combination with a low-protein diet for patients with SBC provides a clinically significant antiproteinuric effect, alleviates the symptoms of chronic renal failure and allows for better control of metabolic processes. disorders and arterial hypertension.

It should be noted that the use of a low-protein diet in combination with keto-analogs of amino acids did not lead to negative dynamics in the indicators characterizing the nutritional status of patients. The absence of negative effects of a low-protein diet in combination with keto-analogs of amino acids on patients was also confirmed in another clinical study [46]. Given that the cost of dialysis therapy accounts for about 70% of all costs for the treatment of patients with SBC, the appointment of a low-protein diet with keto-analogs of amino acids and delaying the start of dialysis to slow the progression of renal failure is of interest

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from a pharmacoeconomic point of view. An economic analysis of an Italian study (2020) [48] showed that the use of a low-protein diet with keto analogues of amino acids allows to safely delay the start of dialysis by an average of 1 year and leads to a saving of approximately 30 thousand euros per person. Elderly patient with CKD for more than 3 years. At the same time, the combination therapy with keto analogues of amino acids with a low-protein diet can reduce the cost of treatment for each patient during the first year by more than 20 thousand euros. In general, optimizing a low-protein diet and developing rational regimens for the use of keto analogues of amino acids can be considered one of the most feasible ways to optimize the treatment of patients with chronic renal failure who, for various reasons, have not started renal replacement therapy.

Of course, elderly people with SCD remain one of the most difficult patient groups to manage. Nevertheless, a careful correction of existing risk factors, an interdisciplinary approach to determining treatment and rehabilitation tactics, and the most effective use of therapeutic strategies, the effectiveness of which can be discussed by referring to the experience of controlled clinical trials, allow us today to believe in a significant improvement in the prognosis for these patients.

Literature.

1. Atkins RC, Briganti EM, Zimmet PZ, Chadban SJ. Association between albuminuria and proteinuria in the general population: the AusDiab Study. Nephrol Dial Transplant 2003;18(10):2170-4. doi: 10.1093/ndt/gfg314
2. B.Z Dzhumaev., STUDY OF THE DISTRIBUTION OF GENES AND GENOTYPES DETERMINING EXCESS BODY WEIGHT IN THE ELDERLY AND THE ELDERLY - Educational Research in Universal Sciences, 2023
3. B.Z Dzhumaev., STUDY OF THE DISTRIBUTION OF GENES AND GENOTYPES DETERMINING EXCESS BODY WEIGHT IN ELDERLY AND ELDERLY PEOPLE - Educational Research in Universal Sciences, 2023
4. Chronic disease. Izbrannye glavy nefrologii/ N.A. Tomilina. - 2017.
5. Chronic disease. Klinicheskie rekomendatsii Assotsiatsii nefrologov. - 2021.
6. Chronic disease. Problemy i solution/ O.N. Kotenko// Moskovskaya meditsina. – 2018. – No. 1.
7. Chronicheskaya bolezn chek: sovremennoe sostoyanie problems/ M.M. Batyushin// Rational pharmacotherapy and cardiology. – 2020. – No. 6.
8. Coresh J., Astor BC, Greene T. et al. Prevalence of chronic kidney disease and decreased kidney function in the adult US population: Third National Health and Nutrition Examination Survey // Am. J. Kidney Dis. - 2003. - Vol. 41(1). – P. 1–12.
9. dialysis in the United States // Ann Intern Med. - 2007. - Vol. 146. – P. 177–183.. Hemmelgarn B.R., James M.T., Manns B.J. et al. Rates of treated and untreated kidney
10. Djumaev B. Z. IZUCHENIE RASPROSTRANENNOSTI GENOV I GENOTIPOV IZBYTOChNOY MASSY TELA PRI HRONIChESKIH ZABOLEVANIYAX PECHENI //Biologiya i integrativnaya meditsina. – 2022. – no. 2 (55). - S. 95-103.
11. Djumaev B. Z. Overweight and obesity of chronic diseases in the elderly in the health care measures of Abu Ali Ibn Sina Mejdunarodnyy nauchnyy zhurln № 18 (100), chast1 "Nauchnyy Fokus" October, 2024

ISSN: 2692-5206
AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

12. Djumaev B. Z. Puti Snijenia Izbytochnoy Massy Tela I Ojireniya Pri Khronicheskikh Zabolevaniyakh Pecheni //SCIENTIFIC JOURNAL OF APPLIED AND MEDICAL SCIENCES. - 2022. - T. 1. – no. 5. - S. 100-106.
13. Djumaev B. Z. Sposoby Snijeniya Izbytochnogo Vesa I Ojireniya Pri Khronicheskom Zabolevanii Pecheni V Meditsinskikh Vmeshatelstvax Abu Ali Ibn Siny //SCIENTIFIC JOURNAL OF PRACTICAL AND MEDICAL SCIENCES. - 2022. - T. 1. – no. 5. - S. 94-99.
14. Djumaev B. Z. WAYS FOR REDUCING OVERWEIGHT AND OBESITY IN CHRONIC LIVER DISEASES //Galaxy International Interdisciplinary Research Journal. - 2022. - T. 10. – no. 12. - S. 1615-1619.
15. Djumaev B.Z. WAYS FOR REDUCING OVERWEIGHT AND OBESITY IN CHRONIC LIVER DISEASES Galaxy International Interdisciplinary Research Journal 10 (12), 1615-1619.(2022)