



ANALYSIS OF CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH CHRONIC KIDNEY DISEASE

Mirzayeva G.P.

Jabbarov O.O.

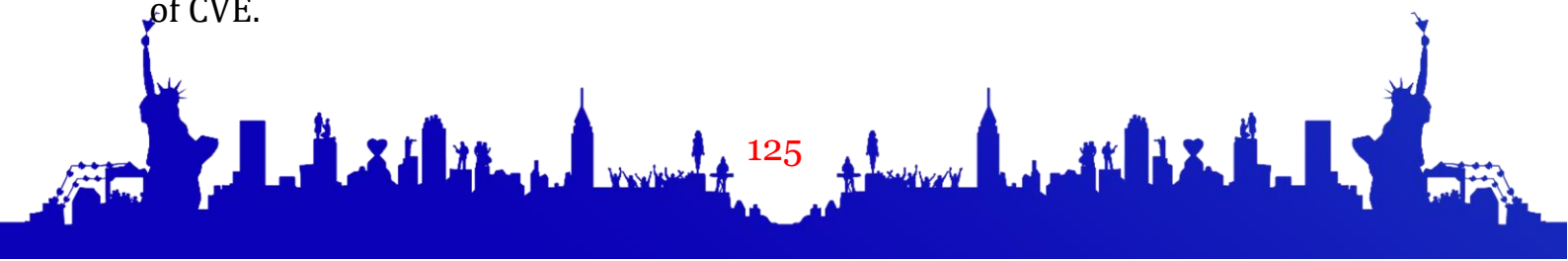
Tashkent medical academy, Tashkent, Uzbekistan

<https://doi.org/10.5281/zenodo.13789146>

Aim. To evaluate the prevalence of and risk factors (RF) associated with cardiovascular system damage in patients with predialysis diabetic and nondiabetic chronic kidney disease (CKD).

Subjects and methods. The investigation enrolled 317 patients with CKD of various etiologies. In Group 1 (165 patients with CKD: 54% of men, 46% of women; mean age 46 ± 15 years), the glomerular filtration rate (GFR) was 37.2 ml/min; the serum creatinine level was 2.9 mg/dl. Group 2 included 152 (41%) patients with type 2 diabetes mellitus (DM) (41% of men and 59% of women; mean age 57.3 ± 7.1 years). The duration of DM averaged 10.4 ± 7.1 years. All the patients underwent physical examination; the levels of glycated hemoglobin and adipose tissue hormones, urinary albumin excretion were additionally determined in the diabetic patients. Echocardiography was performed in 172 patients. The influence of populationwide and renal failure-associated RFs on the cardiovascular system was evaluated in CKD.

Results. Clinical and instrumental examinations of 165 patients with Stages II—IV nondiabetic CKD revealed atherosclerosis of the aorta and the vessels of the heart, brain, kidney, and lower extremities in 60 (37%), 35 (24%), 30 (18%), 23 (14%), and 8 (5%), respectively. As atherosclerotic vascular lesion progressed, the incidence of cardiovascular events (CVE) increased. Left ventricular hypertrophy (LVH) was diagnosed in 37.3% of the patients with nondiabetic CKD. Along with traditional cardiovascular RFs (age, smoking, gender, arterial hypertension), the renal dysfunction-related factors (anemia, diminished glomerular filtration rate, elevated creatinine levels, and abnormal phosphorus and calcium metabolism) are of importance. An association was found between LVH, atherosclerotic vascular lesion, and heart valve calcification. According to EchoCG data, 36% of the patients with type 2 DM were diagnosed as having LVH. The RFs of the latter were albuminuria, obesity, and abnormal carbohydrate and purine metabolisms. There was an association of diabetic nephropathy with left ventricular remodeling processes and a history of CVE.





Conclusion. The development of cardiorenal syndrome is observed in early-stage CKD and related to both traditional and renal risk factors.

Использованная литература:

1. Thomas B, Matsushita K, Abate KH, Al-Aly Z, Arnlov J, Asayama K, et al. Global cardiovascular and renal outcomes of reduced GFR. J Am Soc Nephrol. 2017;28(7):2167–79.
2. Ali S, Dave N, Virani SS, Navaneethan SD. Primary and secondary prevention of cardiovascular disease in patients with chronic kidney disease. Curr Atheroscler Rep. 2019;21(9):32.
3. Xodjanova, S. I., Boqiyeva, D. R., Jabbarov, A. A., Umarova, Z. F., Kenjayev, M. L., Saydaliyev, R. S., ... & Nadirova, Y. I. (2023). Surunkali yurak yetishmovichiligi mavjud bemorlarda buyrak disfunktsiyasining kasallik kechishiga ta'siri. Евразийский журнал медицинских и естественных наук, 3(1 Part 2), 139-144.
4. Jumanazarov, S., Jabbarov, O., Umarova, Z., Tursunova, L., & Mirzayeva, G. (2022). Factors affecting platelet hemostasis and resistance to curantil in patients with chronic kidney disease.
5. Зарудский А.А., Терехина А.А., Сергеева Ю.С., Габдракипова А.А. Хроническая болезнь почек и ее роль в первичной оценке сердечно-сосудистого риска // Современные проблемы науки и образования. – 2019. – № 4.
6. Mirzaeva, G. P. (2023). Evaluation of the effectiveness of antioxidants on the functional state of the kidneys in patients with diabetic nephropathy.

