Aim. To determine the prevalence of hypertriglyceridemia (HTG) and evaluate its association with markers of renal dysfunction in chronic kidney disease (CKD).
Material and methods. The study utilized clinical, laboratory, and instrumental data from 562 patients with non-diabetic CKD. The mean age of patients was 37.7 years (age range 17 to 72 years). Anthropometric, hemodynamic, and laboratory parameters were assessed.
Patients were divided into two groups: Group 1 — women (n=185), Group 2 — men (n=377). A blood triglyceride (TG) concentration of ≥ 1.7 mmol/L was considered as HTG.
Results. In the overall cohort of CKD patients, the prevalence of HTG was 55.3%. The frequency of HTG was higher at CKD stages 3B (72.00%), 3A (67.20%), 2 (60.90%), and 1 (57.50%) compared to stages 4 (49.20%) and 5 (39.50%).
Levels of systolic, diastolic, pulse, and mean arterial pressure (MAP), as well as 24-hour proteinuria, were significantly higher, while high-density lipoprotein cholesterol (HDL-C) levels were significantly lower in men than in women. Lower values of peripheral blood laboratory parameters (hemoglobin, red blood cells, platelets) and nitrogen excretion function of the kidneys were characteristic of females. A strong correlation was found between estimated glomerular filtration rate (eGFR) and risk factors for chronic renal failure in both female and male patients. In the female CKD group, eGFR significantly correlated with age, systolic, diastolic and mean arterial pressure, hemoglobin (Hb) concentration, red blood cell and platelet counts. In men with CKD, eGFR significantly correlated with age, systolic, diastolic, pulse and mean arterial pressure, Hb concentration, red blood cell and platelet counts, as well as serum total cholesterol, HDL-C, and TG levels. In the overall patient cohort, a statistically
significant relationship was observed between serum TG concentration and both eGFR and 24-hour proteinuria.
Conclusion. In patients with CKD, HTG is more common at the stage of renal insufficiency and is closely associated with markers of renal dysfunction. The association of HTG with cardiovascular risk factors is more pronounced in men. These findings highlight the need for early screening of triglyceride levels for timely correction of metabolic disorders and slowing the progression of chronic kidney disease. A differentiated approach to lipid profile assessment
in men and women will allow for more accurate prediction of disease course and optimization of preventive therapy strategies.