The aim was to study the clinical characteristics, echocardiographic data, N-terminal brain natriuretic peptide (NT-proBNP) levels at the hospital stage in patients with acute ST-segment elevation myocardial infarction (STEMI) in relation to the risk of in-hospital mortality
(GRACE scale) and glomerular filtration rate (GFR).
Methods. Patients with STEMI who were followed in hospital were included on the first day of the cardiovascular event (n=150). The objective, laboratory data, including NTproBNP level, EchoCG in the dynamics of hospital treatment of patients depending on the risk level of the GRACE scale, GFR <60 ml/min/1.73 m2 and ≥60 ml/min/1.73 m2 were evaluated. Statistical processing of the material was performed with "Statistica 10.0 for Windows".
Results. On the first day of STEMI, NT-proBNP concentration increased independently of the risk of in-hospital mortality (GRACE scale) and remained high at the in-hospital stage. Positive correlations: NTproBNP levels at hospital admission and discharge; NTproBNP levels at hospital admission with functional class of chronic heart failure and GRACE scale ($p<0.05$) indicated an unfavourable prognosis. High-risk STEMI patients on the GRACE scale were characterised by more severe diastolic and systolic myocardial function of the left ventricle. Patients with reduced GFR had a higher risk of in-hospital mortality with signs of left ventricular dilatation.
Conclusion. Patients at high risk according to the GRACE scale have older age, reduced left ventricular ejection fraction and the most severe changes in diastolic function. Evaluation of heart failure markers, GFR during the hospital stage of STEMI allows to choose the correct tactics of patient management.