

Results and their discussion. Hemodynamically significant atherosclerotic lesions were detected in the aortofermoral segment in 16 patients, femorotibial segment in 37 patients, and both segments in 16 patients. The MTHFR A1298C polymorphism genotypes were distributed as follows: AA in 37 patients (53,62%), AC in 21 patients (30,43%), and CC in 11 patients (15,94%). Angioplasty combined with stenting was the most common revascularization procedure, accounting for 55,07% of interventions.

Conclusions. In patients with lower-extremity arterial disease undergoing endovascular or hybrid interventions, the homozygous AA genotype of the MTHFR A1298C polymorphism was the most predominant genotype. Angioplasty with stenting was the most prevalent revascularization method applied.

LITERATURE

1. The 1298A→C polymorphism in methylenetetrahydrofolate reductase (MTHFR): in vitro expression and association with homocysteine / I. S. Weisberg, P. F. Jacques, J. Selhub [et al.] // Atherosclerosis. – 2001. – Vol. 156, № 2. – P. 409–415.

2. Homocysteine attack on vascular endothelium – old and new features / L. L. Hurjui, C. C. Tarniceriu, D. N. Serban [et al.] // International Journal of Molecular Sciences. – 2025. – Vol. 26, № 13. – Art. 6298.

OUTCOME ANALYSIS IN PATIENTS WITH NON-ST ELEVATION ACUTE CORONARY SYNDROME

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Relevance. Non ST-elevation acute coronary syndrome (NSTEMI-ACS) represents a heterogeneous clinical entity ranging from unstable angina to non-ST-elevation myocardial infarction (NSTEMI). Despite similar initial clinical presentation, patient outcomes vary considerably. Early identification of factors associated with progression to myocardial infarction remains clinically important for risk stratification and management optimization [1].

Target. To compare clinical, laboratory, and echocardiographic characteristics of patients presenting with NSTEMI-ACS according to in-hospital diagnosis (NSTEMI versus unstable angina), and to identify parameters associated with myocardial infarction development.

Research methods. A prospective observational study included 98 patients admitted with NSTEMI-ACS to the Grodno Regional Clinical Cardiological Center (Belarus) in 2025. Patients were divided into two groups: Group 1 – myocardial infarction (n=51) and Group 2 – unstable angina (n=47). All patients underwent clinical evaluation, laboratory testing including cardiac biomarkers, echocardiography, and

coronary angiography with possible percutaneous coronary intervention. Statistical analysis was performed using non-parametric methods with significance set at $p < 0.05$.

Results and their discussion. The two groups were largely comparable in terms of demographic and major cardiovascular risk factors. No significant differences were observed in male gender predominance (62.7% vs. 70.2%; $p > 0.05$), median age (65 [58; 72] vs. 67 [63; 72]; $p > 0.05$), prevalence of obesity, diabetes mellitus, or anemia ($p > 0.05$). Similarly, functional status as assessed by NYHA heart failure classification showed balanced distribution across classes 1–3 ($p > 0.05$).

Patients with MI demonstrated significantly higher leukocyte counts ($p = 0.005$), higher creatinine levels ($p = 0.01$), and significantly different total cholesterol values ($p = 0.0003$). Markedly higher troponin values in Group 1 in comparison with Group 2 ($p < 0.001$) strongly suggest greater myocardial necrosis in Group 1. Echocardiographically, patients with unstable angina showed larger left atrial dimensions ($p = 0.017$ and $p = 0.031$) and greater left ventricular end-diastolic diameter ($p = 0.033$). Left ventricular end-diastolic volume assessed by B-mode was also significantly higher in the unstable angina group ($p = 0.008$). No significant differences were observed in left ventricular ejection fraction.

Conclusions. Patients with NSTEMI-ACS who develop myocardial infarction exhibit more pronounced inflammatory activation and renal function impairment, whereas those with unstable angina demonstrate more prominent structural cardiac remodeling. These findings suggest that both inflammatory burden and cardiac structural characteristics may contribute differently to clinical outcomes in NSTEMI-ACS.

LITERATURE

1. Sandoval, Y. Using High-Sensitivity Cardiac Troponin T for Acute Cardiac Care / Y. Sandoval, A. S. Jaffe // The American Journal of Medicine. – 2017. – Vol. 130, № 12. – P. 1358–1365.

THE SECOND CHANCE: FUTURE OF FERTILITY IN BELARUS

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Relevance. According to WHO blocked fallopian tubes account for about 25-30% of female infertility cases. This research is retrospectively analyzing the success rate of reconstructive microsurgery for tubal infertility as a first line approach to achieving tubal reversal and pregnancy after tubal infertility. Tubal infertility represents a significant global health burden accounting for approximately 25-35% of cases worldwide. Tubal infertility has a great influence for every family during the