

reach statistical significance. Left ventricular ejection fraction tended to be higher in Group DC (59.6% [56.7; 63]) than Group SC (55.4% [51.5; 61.5], $p=0.09$).

Conclusions. SC patients were older, and presented with more persistent AF, advanced AV block, and larger atrial sizes. DC patients predominantly presented with sick sinus syndrome and paroxysmal AF, and better atrial dimensions. These findings highlight the need for personalized pacemaker selection to improve patient management.

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THE GENETIC PROFILE OF MTHFR A1298C VARIANT IN PATIENTS WITH LOWER-EXTREMITY ARTERIAL DISEASE REQUIRING ENDOVASCULAR THERAPY

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Relevance. The methylenetetrahydrofolate reductase (MTHFR) A1298C polymorphism reduces enzyme activity, weakening homocysteine metabolism and resulting in moderate hyperhomocysteinemia [1]. Elevated homocysteine causes endothelial dysfunction and hastens atherosclerosis, increasing cardiovascular disease risk [2]. Peripheral arterial disease (PAD) may progress to critical limb ischemia, often requiring endovascular revascularization, mainly angioplasty with stenting.

Target. To explore the distribution of the MTHFR A1298C polymorphism in patients with lower-extremity arterial disease undergoing endovascular or hybrid revascularization interventions, and to evaluate the characteristics of atherosclerotic lesions and the types of revascularization procedures performed.

Research methods. This retrospective study included 69 patients (58 males, 11 females) diagnosed with chronic arterial insufficiency per the Fontaine-Pokrovsky classification. Inclusion criteria consist of patients with informed consent who underwent lower-extremity revascularization for atherosclerotic lesions. Patients without chronic arterial insufficiency, without consent, or with multiple interventions were excluded. The distribution of atherosclerotic lesions and MTHFR A1298C genotypes were investigated.

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.

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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