

ST-ELEVATION MYOCARDIAL INFARCTION COMPLICATED BY VENTRICULAR ARRHYTHMIAS: CLINICAL AND ECHOCARDIOGRAPHIC FEATURES

Wathukarage Thirasha Sachinthana Kumari Jayarathne,
Karunanayake Mudiyanseleage Sithara Sashikala Madhubhashini
Karunanayake, Kottage Rashini Divyanjalee,
Liyanage Limal Chandula

Grodno state medical university

Научный руководитель: Kalatsei L. V.

Introduction. Early malignant ventricular arrhythmias during the course of ST-elevation myocardial infarction (STEMI) markedly contribute to in-hospital mortality, yet have no influence on long-term prognosis, as the cause of arrhythmia is believed to be reversed after revascularization [1]. It is unknown why some patients develop ventricular tachycardia (VT) or ventricular fibrillation (VF) during ischemia, while others in a seemingly similar situation do not. Despite a number of proposed risk factors associated with a higher risk of VT in STEMI, predicting malignant VT in an individual patient remains challenging.

Aim of the study. To establish clinical and echocardiography features of patients with STEMI and ventricular arrhythmias compared to patients with uncomplicated STEMI.

Materials and methods. The study included 91 patients with STEMI who were admitted to the Grodno State Cardiological Center for treatment from February 2024 to February 2025. Group 1 included 64 patients with STEMI while Group 2 included 29 patients with STEMI and ventricular arrhythmias (sustained VT or VF). All patients underwent clinical, laboratory, and instrumental studies, including coronary angiography. Statistical analysis was performed using the STATISTICA 12.0 software.

Results and discussion. Patients in both groups were comparable in age (58 [52; 64] vs 60 [55; 64], $p=0.181$) and gender (male sex 78% vs 76%, $p=0.865$). There were no significant intergroup differences in the prevalence of hypertension, obesity, hyperlipidemia, prior stroke, atrial fibrillation and diabetes mellitus ($p>0.05$). 10 patients with STEMI had episodes of VF and 21 patients – episodes of sustained VT. Patients with ventricular arrhythmias had significantly higher levels of urea (6.1 [4.8; 7.8] vs 5.2 [3.9; 6.1] mmol/L, $p=0.04$), and glucose (7.9 [5.3; 8.8] vs 7.1 [5.3; 8.1] mmol/L, $p=0.008$). Their lipid profile parameters (total cholesterol, triglycerides, LDL, HDL) were comparable, as well as electrolytes and liver enzymes ($p>0.05$). Also patients of Group 2 had significantly higher troponin levels (30430

[6352; 50000] vs 12479 [846; 15964] ng/L, $p=0.004$) than patients of Group 1. According to the results of transthoracic echocardiography, patients of both groups were comparable in diameters of both atria and ventricles. However patients of Group 2 had larger end-systolic volume of the left ventricle (62 [46; 62] vs 54 [42.5; 63] ml $p=0.004$), and lower LVEF (49 [45; 54]% vs 54 [51; 59]%, $p=0.001$).

Conclusion. Comparative analysis of echocardiography characteristics of patients with STEMI showed that the linear and volumetric characteristics of the left ventricle of patients with STEMI and ventricular arrhythmias exceed similar parameters in patients without VT. A possible connection between the obtained results and future adverse outcomes of HF requires further study.

ЛИТЕРАТУРА

1. Ventricular arrhythmias during ST-segment elevation myocardial infarction and arrhythmic complications during recurrent ischaemic events / M.M. Demidova [et al.] // EurHeart J. – 2024. – Vol. 45, №5. – P. 393–395. doi: 10.1093/eurheartj/ehad740.

COMPARISON OF PREVALENCE AND COPING MECHANISMS OF ANXIETY-RELATED SOMATIC SYMPTOMS IN BELARUSSIAN AND SRI LANKAN MEDICAL STUDENTS

Wickramasooriyage Sandalie Chamalika Senarathna,
Mathotaarachchi Bihara Rasanjalee,
Walpola Kankanamalage Thilini Udarika

Grodno state medical university

Научный руководитель: Savitski I. S.

Introduction. Medical students undoubtedly undergo chronic stress and anxiety. High levels of stress may alter the cognitive function and learning capacity of students. The somatic complaints and coping mechanisms of anxiety are influenced by cultural norms and can differ amongst populations in different countries.

Aim of the study. To study the prevalence and coping mechanisms of anxiety-related somatic symptoms in Belarussian and Sri Lankan medical students residing in Belarus.

Materials and methods. The reported stress questionnaire (PSQ-30) was used in this study to gauge participants' reported stress levels and how they related to physical symptoms. In total, there were 122 competent people ($n = 122$), including 45 students