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FEATURES OF THE CLINICAL COURSE OF MYOCARDIAL INFARCTION WITH CHRONIC HEART FAILURE IN PATIENTS AT YOUNG AGE

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Abstract:

In this scientific work, assessment of the clinical status of patients with myocardial infarction with CHF with reduced left ventricular ejection fraction (CHF-SFV) at a young age and its relationship with other factors. The study included 92 patients (45 men, 47 women) with CHF-NFV I-II A stages, according to NYHA I-III FC, in combination with coronary heart disease (CHD), aged 18-45 years (mean age 35.0± 7.8 years old), hospitalized in the Department of ACS and IHD of the Samarkand Regional Branch of the Republican Scientific and Practical Specialized Medical Center for Cardiology. All patients underwent anamnesis, anthropometry, general clinical examination with an assessment of CHF symptoms according to the SHOKS scale. Exercise tolerance was determined using the 6-minute walk test (WST). ECG and echocardiography were also performed according to the standard method. Women with unstable angina pectoris most often suffer from CHF–SFV, the vast majority of whom have AO. With an increase in the total score for SHOKS, the quality of life and exercise tolerance deteriorate.

Keywords: myocardial infarction, chronic heart failure, ejection fraction, young age, etc.

RELEVANCE

Ischemic heart disease (CHD) is one of the most common diseases of the cardiovascular system (CVS) in all economically developed and developing countries of the world [1, 2, 5] . Numerous clinical and epidemiological studies indicate a progressive increase in the incidence, disability and mortality from coronary artery disease among the population throughout the world, which is especially alarming in young people [3, 4, 7] . Mortality from coronary artery disease in people aged 25-34 years is 10:100,000. The clinical picture of IHD in young patients differs from that in older patients. Young people often do not have angina pectoris [6, 9], and in most cases acute coronary syndrome (ACS) - more often acute myocardial infarction (AMI) with ST segment elevation - is the first manifestation of CAD [8, 10]. In a study of 200 patients with CAD confirmed by coronary angiography (CAG), stable angina was less common in patients younger than 45 years of age than in the older age group (24% vs 51%; $p<0.001$), and the first manifestation of CAD was more often ACS (76% versus 49%; $p<0.001$) [11, 13].

Chronic heart failure (CHF) is a formidable and prognostically unfavorable complication among all CVDs. The incidence of CHF is 2–3% and increases with age: up to 3–4% in persons aged 45 years and older and up to 10% in persons 70 years and older [10, 14]. CHF is the end of AMI and has the highest risks of total and cardiovascular mortality due to damage to the heart and target organs [13, 15]. In parallel with the improvement of prevention and early diagnosis, improvement of CHF treatment methods , as well as with an increase in life expectancy, the importance of CHF for the healthcare system and society is steadily increasing, including because its treatment requires huge financial costs .

AIM: to assess the clinical status of patients at a young age with myocardial infarction with CHF with reduced left ventricular ejection fraction (CHF-SFV) and its relationship with other factors.

MATERIALS AND METHODS. The study included 92 patients (45 men, 47 women) with CHF-NFV I-II A stages, according to NYHA I-III FC, in combination with coronary heart disease (CHD), aged 18-45 years (mean age 35.0± 7.8 years old), hospitalized in the Department of ACS and IHD of the Samarkand Regional Branch of the Republican Scientific and Practical Specialized Medical Center for Cardiology. All patients underwent anamnesis, anthropometry, general clinical examination with an assessment of CHF symptoms according to the SHOKS scale. Exercise tolerance was determined using the 6-minute walk test (WST). ECG

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and echocardiography were also performed according to the standard method. Statistical processing of the results was carried out using the Statistica 6.1 program.

RESULTS. The substrate for the development of CHF-SFV in 50% of patients was progressive exertional angina, in the remaining 50% - hypertension in combination with coronary artery disease. In women, CHF–SFV more often developed against the background of unstable angina (73% of cases), in men - against the background of a combination of hypertension with coronary artery disease (73.3% of cases). Abdominal obesity (AO) (WC ≥80 cm in women and ≥94 cm in men) was observed in 79.3% of patients. The proportion of patients with AO among men and women was 80 and 85%, respectively. During the general clinical examination, all patients complained of shortness of breath during exercise; 55 (59.7%) had pastosity of the feet and legs, 10 (23.8%) had edema; congestive rales in the lungs were heard in 8 (19.0%); also in 8 (19.0%) the liver was enlarged. Correlation analysis revealed a relationship between the total score for SHOKS and quality of life (QoL) (r=0.43; p=0.003), as well as SHOKS and the result of TST (r=-0.46; p=0.002). The severity of the clinical condition according to SHOCS was also influenced by the thickness of the IVS (r=0.47; p=0.002), GL (r=0.34; p=0.03), LVML (r=0.38; p=0, 03) and LVMI (r=0.35; p=0.04). Patients with hypertension and coronary artery disease had a higher total score for SHOCS than patients with progressive angina pectoris: 4.0±1.6 versus 3.3±0.8 (p=0.08); and they also tolerated physical activity worse: the distance covered by them during the TSH was 376.3±82.2 m and 415.4±78.6 m, respectively (p=0.09). Differences were also obtained between some structural and functional parameters of the myocardium in these groups of patients: the size of the pancreas in patients with only unstable angina was 30.0 ± 3.2 mm versus 32.1 ± 2.8 mm in patients with hypertension and coronary artery disease (p= 0.03), IVS thickness – 13.1±0.9 and 14.1±1.7 mm (p=0.02), IVRT – 112.1±26.9 and 131.7±27.4 mm (p=0.04), LV MM–257.6±41.0 and 310.5±63.1 g (p=0.006), LV MM–138.8±21.2 and 154.2±19, 9 g/m2 (p=0.04), respectively.

CONCLUSIONS. Women with unstable angina pectoris most often suffer from CHF–SFV, the vast majority of whom have AO. The leading complaint is dyspnea on exertion. With an increase in the total score for SHOKS, the quality of life and exercise tolerance deteriorate. The severity of clinical manifestations of CHF correlates with the degree of LV hypertrophy. Patients with hypertension and coronary artery disease have more pronounced CHF symptoms, tolerate physical activity worse and have a higher degree of LV hypertrophy.

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