



CHARACTERISTICS OF ISCHEMIC HEART DISEASE IN CONNECTION WITH CLIMACTERIC CARDIOPATHY

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Ischemic heart disease, climacteric cardiopathy, risk factors are some of the terms used in this study.

ABSTRACT

The clinical examination data and laboratory-instrumental study results were analyzed in 113 women with chest pain complaints in inpatient treatment, who were divided into two groups: the first group included 60 (53%) of patients with IHD combined with climacteric cardiopathy, and the second comparison group included 53 (47%) patients with IHD. It was discovered that in patients with IHD and climacteric cardiopathy, there was an increase in BMI, the presence of abdominal obesity, diabetes mellitus was more frequently detected and had a longer, unfavorable course, all of which contributed to an unfavorable course, progression, and development of cardiovascular disasters.

Introduction. The medical community has recently become interested in the issue of gender differences in cardiovascular risk factors [5, 3]. Women of childbearing age, as opposed to men, have a lower risk of cardiovascular events [7]. However, the risk of developing CVD, including IHD, increases significantly after menopause [4, 6, 7]. A significant increase in cardiovascular risk during menopause is caused by the complex effect on the body of a number of external and internal risk factors, some of which are unchangeable (age, genetic predisposition, etc.), while others can be corrected during primary CVD prevention, which affects the cardiovascular system through redistribution of adipose tissue, various

metabolic, hemodynamic, proinflammatory changes and direct effects of estrogen deficiency on the uterus the distal wall [1]. The problems of diagnosis and differential diagnosis of hormonal cardiopathy and coronary heart disease in recent years have attracted increasing attention of cardiologists. Climacteric cardiopathy (CCP) and coronary insufficiency occur in the same age period, so their combinations are possible. The basis for such an assumption is the emergence along with cardiology of compressive pain behind the sternum according to the type of angina pectoris, the association of pain with physical exertion, the effect of nitroglycerin, indirect signs of atherosclerosis: X-ray detected compaction



of the aorta, propensity to hyperlipidemia, hypertension [2]. Treatment of ischemic heart disease combined with CCP has its own peculiarities and the effectiveness of therapy is significantly reduced by using only modern standards for the treatment of coronary heart disease and the neglect of concomitant pathology. This lengthens the process of treatment, recovery and reduces the quality of life.

Objective: To study the features of the course of IHD in combination with climacteric cardiopathy. **Material and methods of investigation.** The paper analyzed 113 women aged 40 to 55 years (mean age 46.8 ± 3.2 years) with coronary artery disease (progressive angina pectoris, climacteric cardiomyopathy), are examined and treated in the emergency department treatment of the Samarkand branch of the Republican Scientific Center of Emergency Medical Aid from 2015–2017. Inclusion criteria were: female gender, age from 40 years to 55 years, diagnosed earlier coronary heart disease, in particular, progressive angina pectoris, confirmed by a gynecologist diagnosed peri- and post-menopausal patients' informed consent for participation in the study. Of the 113 patients diagnosed with IHD in combination with the CCP, two groups were formed for subsequent comparative analysis: the 1st group included 60(53%) patients with IHD combined with climacteric cardiopathy.

All patients had no menstruation for more than 1 year. In 51(85%) patients of this group, menopause was physiological, in the remaining 9(15%) – surgical. The 2nd comparison group included 53(47%) patients with IHD who had a regular or irregular menstrual cycle, or no

menstruation for less than 1 year. At discharge from the hospital, all patients along with standard antianginal and disaggregant therapy were prescribed a cimicifuga preparation. In each test group was carried out a clinical examination and a thorough history, in accordance with conventional techniques to ascertain complaints duration of the disease, assessment of risk factors (RF) of ischemic heart disease, a history of complications – MI, CHF. Evaluated following risk factors coronary artery disease: dyslipidemia (DLP), arterial hypertension (AH), impaired glucose metabolism in the form of diabetes mellitus (DM), obesity and the nature of the distribution of body fat, family history. **Results and discussion.**

As the results of the study showed, the total cholesterol (TCH) content was 6.8 ± 2.5 mmol/l in the first group and 6.1 ± 2.0 mmol/l in the second group, $p = 0.05$. The level of HDL was 0.9 ± 0.36 mmol/l in the first group and 1.24 ± 0.38 mmol/l in the second group, $p = 0.03$. The level of LDL was 4.73 ± 0.74 and 3.72 ± 0.81 mmol/l, respectively, $p < 0.001$. In addition, hypertriglyceridemia was noted in both groups: the TG level was 4.1 ± 0.59 mmol/l in the first group and 3.74 ± 0.38 mmol/L in the second group, $p < 0.001$, the atherogenicity coefficient was 5.3 and 4.1, respectively, $p < 0.001$. The presence of AH in both groups did not differ statistically – 46(87%) and 57(95%), respectively, $p = 0.09$. Patients of the first group had higher maximum BP figures (212 mm Hg vs. 173 mm Hg, $p = 0.002$), a longer course of AH (9.8 ± 3.5 yr versus 7.2 ± 3 years, 7 years, $p = 0.001$), and higher figures like SBP (156.7 mm Hg vs. 137.4 mm Hg, $p = 0.005$) and DBP (99.8 mm Hg vs. 80,6 mm Hg, $p = 0,005$), against the background of taking



antihypertensive drugs. Type 2 diabetes mellitus was detected in 8(13.3%) patients in the first group and in 6(12.3%) in the second group, $p = 0.002$. The

duration of diabetes, according to the history, was 6.5 ± 3.0 years and 4.1 ± 1.5 , respectively, $p = 0.014$. The combination of two or more RF is often found in both groups, the first group differed only in the more frequent combination of AH and DM and AH, SD, DLP ($p = 0.02$ in both cases). Obesity of the first degree in the first group in 27(45%), in the second group was found in 11(21%), $p = 0.15$, overweight in 30(50%) and 29(55%) patients, respectively, $p = 0.53$. Mean BMI in the first group was 31.4 ± 4.2 kg/m², in the second group – 28.1 ± 3.7 kg/m², $p = 0.001$, and abdominal obesity in the groups was 27(45%) and 15(28%) patients, respectively, $p = 0.01$.

Weighed family history was noted in 29(48%) patients in the first group and in 11(21%) in the second group, $p = 0.005$. When analyzing the results of ECG, among pathologies of the first group, the pathological Q wave was noted in 19(51%) patients, and the change in the final part of the ventricular complex (ST segment depression, negative T wave) in 17(46%) patients. With the same frequency, these changes also occurred in the second group – in 15(60%) and 10(40%) patients, respectively. According to the results of EchoCG, in both groups, the violation of local contractility was registered in 29(78%) and 17(68%) patients, respectively ($p = 0.32$), LVH in 26(70%) and 12(48%) ($p = 0.032$), a decrease in EF (< 40%) in 12(32%) and 6 (24%), respectively ($p = 0.229$).

Patients with IHD combined with CCP were divided into two subgroups depending on

the therapy received: A group comprised 39 women, who included the preparation of cimicifuga in the complex of therapy; the second group consisted of 21 women receiving traditional therapy. When comparing RF after treatment in women adherent to taking cimicifuga, there were lower values of SBP and DBP (120.5 mm Hg and 80.6 mm Hg), compared with women who did not take cimicifuga (135, 4 mm Hg and 93.5 mm Hg). TCH was 6.2 mmol/l versus 6.8 mmol/l. A lower incidence of cardiovascular events, such as acute coronary syndrome, acute myocardial infarction (11% compared with 55% in the group of women who stopped taking cimicifuga, $p = 0.04$), progression of CHF (22 and 70%, respectively, $p \leq 0.04$). Conclusion. Thus, it is necessary to differentiate climacteric cardiopathy and coronary heart disease, as well as determine the degree of their expression in a combined course. The content of LDL, TG and the coefficient of atherogenicity in the group of women with IHD in combination with the CCP were higher. Attention was also drawn to the lower content of HDL in the group of women with IHD in combination with the CCP.

In patients with coronary heart disease in combination with the CCP, there was an increase in BMI and the presence of abdominal obesity, which contributed to the adverse course, progression and development of cardiovascular disasters. In women with coronary artery disease in combination with the CCP, DM was significantly more frequently detected and was characterized by a longer, unfavorable course.

Selection of methods for treatment of patients with IHD in combination with the CCP in accordance with the results



obtained requires a collegial decision involving specialists from related specialties. Improving health status, predicting the disease, preventing disability and increasing the life expectancy of women with IHD in combination with the CCP, largely depends on the timeliness of preventive interventions and the initiation of an appropriately selected

treatment. When assigned to patients with IHD in combination with the CCP of the drug cimicifuga were lower values of blood pressure (both systolic and diastolic), TCH and fasting glucose. In the group of women, adherent to long-term therapy with cimicifuga, there was a lower incidence of myocardial infarction and progression of CHF.

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