

## CLINICAL AND HEMODYNAMIC CHARACTERISTICS OF PATIENTS WITH CORONARY ARTERY DISEASE ASSOCIATED WITH ARTERIAL HYPERTENSION

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**Abstract.** This study evaluated the clinical and hemodynamic characteristics of 120 patients with coronary artery disease associated with arterial hypertension. The findings revealed a predominance of anginal pain and exertional dyspnea, along with a high frequency of asthenic symptoms. More than 46% of patients experienced frequent angina attacks accompanied by persistent hemodynamic disturbances, indicating insufficient therapeutic control. Notably, a higher clinical manifestation was observed in middle-aged women despite overall male predominance. These results highlight the importance of comprehensive clinical assessment and risk stratification in this patient population.

**Keywords:** coronary artery disease, arterial hypertension, angina pectoris, hemodynamics, dyspnea, symptom complex, comorbidity.

**Relevance:** Given the persistently high prevalence of cardiovascular diseases in overall morbidity and mortality, a detailed clinical and functional analysis of patients with coexisting coronary heart disease and hypertension is particularly important. Hypertension is recognized as a key pathogenetic factor in the development and progression of myocardial ischemia, and their combination significantly worsens the clinical course, accelerates the development of complications, and worsens the prognosis (1, 2, 4).

One of the most pressing problems in modern cardiology remains the delayed identification of patients with high functional and hemodynamic risks. Despite the

widespread use of instrumental diagnostic methods such as ECG and echocardiography, assessment of the severity of ischemic syndrome in real-life practice is often limited to recording complaints and a single blood pressure measurement. This prevents comprehensive stratification of patients based on the degree of clinical severity and the likelihood of an unfavorable course of the disease (3,5,6).

**Purpose of the study.** to study the clinical and functional features of the symptom complex and the nature of systemic hemodynamic disorders in patients with coronary heart disease occurring against the background of arterial hypertension.

**Materials and methods of research.** The study included 120 patients undergoing examination and treatment for coronary heart disease associated with hypertension. The age of the subjects ranged from 30 to 85 years, with a mean age of  $58.5 \pm 1.32$  years. Men predominated in the sample—56.7% ( $n = 68$ ), while women accounted for 43.3% ( $n = 52$ ).

The analysis utilized gender and age stratification methods, recording and quantifying subjective complaints, and analyzing the frequency of angina attacks and systemic hemodynamic parameters. Patients were surveyed using a standardized questionnaire, with mandatory clarification of symptom severity. Objective parameters (blood pressure, heart rate) were determined using standard measurement methods (tonometry, pulsometry).

**Conclusions:** Among the examined patients with coronary heart disease and hypertension, males predominated, however, in the age group of 45–59 years, a significant predominance of women was noted (50.0% versus 20.6%,  $p < 0.001$ ), which may indicate a more pronounced clinical manifestation of the disease in middle-aged women. The most common complaints in the study cohort were anginal pain (87.5%) and dyspnea on exertion (78.3%), indicating a high level of ischemic and functional myocardial stress. The frequency of asthenic spectrum symptoms also remained

significant ( $\geq 60\%$ ), emphasizing the role of neurovegetative dysfunction in the pathogenesis of the disease. More than 46% of patients experienced frequent angina attacks ( $>3/\text{week}$ ), accompanied by persistent hemodynamic disturbances (SBP  $151.2 \pm 10.8$  mmHg, DBP  $92.4 \pm 7.1$  mmHg), which indicates insufficient effectiveness of therapy and a high risk of decompensation.

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