



COMPARATIVE ANALYSIS OF RISK FACTORS AND SYMPTOMATOLOGY IN HYPERTENSIVE PATIENTS WITH AND WITHOUT ISCHEMIC HEART DISEASE

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ABSTRACT

Cardiovascular diseases (CVD) continue to occupy a leading position among the causes of disability and premature death worldwide, causing more than 18 million deaths annually. In the structure of cardiovascular diseases, arterial hypertension (AH) and coronary heart disease (CHD) attract particular attention, which are the main determinants of the development of life-threatening vascular complications [2,4,5].

The urgency of the problem: Cardiovascular diseases (CVD) continue to occupy a leading position among the causes of disability and premature death worldwide, causing more than 18 million deaths annually. In the structure of cardiovascular diseases, arterial hypertension (AH) and coronary heart disease (CHD) attract particular attention, which are the main determinants of the development of life-threatening vascular complications [2,4,5].

According to WHO and the Global Burden of Diseases, today more than 1.2 billion people suffer from arterial hypertension, while more than 126 million patients are diagnosed with coronary heart disease. The combination of these diseases is especially often observed in older age groups - after 60 years, it is registered in 45-50% of patients, which is due to the cumulative effect of risk factors such as obesity, dyslipidemia, and chronic inflammation [1,3,6].

Despite the achievements of modern medicine, the problem of effective blood pressure monitoring remains relevant: in 35-40% of patients with arterial hypertension, it remains uncontrolled, which significantly increases the risk of ischemic events, including myocardial infarction and sudden cardiac death. According to epidemiological studies, uncontrolled hypertension is associated with a 15-20% increase in mortality from cardiovascular diseases within ten years. The transition from an isolated form of hypertension to its combination with coronary artery disease is a complex pathophysiological process, including vascular remodeling, microcirculation disorders, and systemic metabolic shifts. However, the molecular and clinical-functional mechanisms of this transition have not been fully studied [7,8,9].

In this regard, the need for comprehensive research aimed at identifying clinical, hemodynamic, and anamnestic factors contributing to the transformation of arterial hypertension into coronary heart disease is increasing. Studying the role of gender, regional,

and anthropometric characteristics in the development and progression of these diseases requires special attention. The obtained data can serve as a basis for developing more accurate risk stratification algorithms, early detection of predictors of complicated arterial hypertension, and improvement of IHD prevention programs, which determines the scientific and practical significance of the conducted research.

The aim of the study studying the features of the symptom complex and risk factors in patients with arterial hypertension, depending on the presence of coronary heart disease.

Research methods and methodology. To conduct the study, a comprehensive clinical and laboratory examination of 120 patients who received inpatient and outpatient treatment at the Bukhara Regional Cardiology Dispensary was conducted. All study participants were carefully selected, taking into account inclusion and exclusion criteria, to ensure maximum reliability of the obtained data and to exclude the influence of concomitant pathologies. Patients were divided into two main clinical groups based on the established diagnosis:

Group I included 60 patients suffering from arterial hypertension. These patients were diagnosed with a primary form of hypertension, without clear signs of coronary artery disease, which allowed us to focus on the features of the specific hypertensive process.

Group II consisted of 60 patients with a confirmed diagnosis of arterial hypertension. These patients represented a more complex clinical category, as the combination of two diseases significantly aggravates the course and prognosis of cardiovascular disorders.

Conclusions:

1. It was established that in patients with arterial hypertension complicated by coronary heart disease (II group), complaints of chest pain, shortness of breath, swelling, chest tightness, and tachycardia were significantly more frequent, indicating pronounced myocardial involvement and the presence of signs of heart failure; while in patients with isolated hypertension (I group), symptoms associated with cerebrovascular disorders such as headache and tinnitus were more characteristic.

2. The hemodynamic profile of patients with coronary artery disease (II group) is characterized by a significantly higher level of heart rate with relatively reduced systolic and diastolic blood pressure compared to the group without coronary artery disease, which reflects the compensatory activation of the sympathetic nervous system and can be considered a pathophysiological marker of progressive coronary artery disease.

3. It was established that in patients with arterial hypertension (II group), there is a tendency towards a higher prevalence of modifiable and non-modifiable risk factors for cardiovascular complications, including smoking ($p=0.024$), hypodynamia, increased psycho-emotional stress, and a complicated family history, which emphasizes the need for comprehensive monitoring of lifestyle and hereditary predispositions in the prevention of coronary artery disease.

References:

1. Avaryanov A. et al. Hypertension. Diagnosis, prevention, and treatment method. // Centropolygraph. Moscow. - 2019. - P. 191.
2. Ananyeva O.V. Hypertension. Best treatment methods. // Workshop Collection. ARIA - AIF. Moscow. - 2017. - P. 128.

- 3.Barbarash O.L. et al. The effect of obesity on the prognosis in patients with coronary heart disease: cohort study data // Cardiology. - 2023. - Vol. 63. - No2. - P. 34-41.
- 4.Osipova E.S. et al. Risk factors for coronary artery stenosis after stenting in women with obesity during menopause. // Russian Cardiology Journal. - 2018. - No. - P. 34-39.
- 5.Chazova I.E., Zernakova Yu.V. Modern approaches to the treatment of arterial hypertension in patients with coronary heart disease // Therapeutic Archive. - 2021. - Vol. 93. - No6. - P. 678-685.
- 6.Chumakova G.A. et al. Features of myocardial infarction in patients with obesity. // Russian Cardiology Journal. - 2017. - No. - P. 75-80.
- 7.Ridker P.M. et al. Inflammation, obesity, and risk of coronary heart disease: a prospective cohort study // The Lancet. - 2015. - V. 385. - P. 123-1241.
- 8.Rosendorff C. et al. Treatment of hypertension in patients with coronary artery disease: a scientific statement from the American Heart Association // Journal of the American College of Cardiology. - 2015. - V. 65. - P. 1998-2038.
- 9.Stamler J. et al. Obesity and cardiovascular risk: insights from the Framingham Heart Study // American Journal of Cardiology. - 2019. - V. 123. - P. 145-152.