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ASSESSMENT OF THE RELATIVE RISK OF CORONARY HEART DISEASE IN LONG-LIVED INDIVIDUALS AND AN ALGORITHM FOR EARLY DETECTION AND PREVENTION

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Annotation: This study is devoted to assessing the relative risk of coronary heart disease in long-lived individuals, early detection of the disease and the development of effective approaches to its prevention. The study analyzes the main risk factors affecting the development of coronary heart disease and assesses their significance. Based on the obtained data, an algorithm aimed at early identification of the risk level and determination of individual preventive measures is proposed. This approach contributes to the early detection of cardiovascular diseases in long-lived individuals, reduction of complications and improvement of quality of life.

Keywords: long-lived individuals, coronary heart disease, relative risk, risk factors, early detection, prognosis, prevention, cardiovascular diseases, individual prevention, prevention algorithm.

Introduction: The increase in life expectancy is making the issue of early detection and effective prevention of cardiovascular diseases, particularly coronary heart disease, among long-lived individuals increasingly relevant. The simultaneous presence of several risk factors in old age increases the likelihood of disease development and creates the need for timely assessment of individual risk. From this point of view, determining the relative risk of coronary heart disease in long-lived individuals, assessing the main risk factors and predicting the disease at an early stage are of great importance. A scientific approach based on early risk assessment makes it possible to individualize preventive measures, reduce complications and improve quality of life. Therefore, within the framework of this study, the development of a practical algorithm for early detection and prevention of coronary heart disease is an important scientific and practical task.

Objective: to assess the relative risk of coronary heart disease in long-lived individuals and to study its early detection.

Methods and materials of the study: A representative sample of 824 individuals aged 90 years and older from an unorganized population group living in the Bukhara region of Uzbekistan was selected as the object of the study (517 long-lived women and 307 long-lived men) and analyzed.

Results obtained: The relative risk of developing coronary heart disease (CHD) in long-lived individuals and its "endpoints" (complications, disability and death) are formed in association with 26 risk factors. These risk factors include: early development of CHD in the family history, hypercholesterolemia, hypertriglyceridemia, hyperglycemia, hyperuricemia, abdominal obesity, arterial hypertension, psychosocial factors, overweight, obesity, physical inactivity, smoking, alcohol consumption, insufficient consumption of vegetables and fruits, metabolic syndrome, chronic kidney disease, presence of at least one risk factor, presence of two risk factors, presence of more than two risk factors, multimorbidity, absence of risk factors, low-level polypharmacy, high-level polypharmacy,

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excessive polypharmacy, patients' adherence to treatment and non-adherence to treatment. According to the results of the study, it was found that in long-lived individuals in the general population, as well as in women and men, the relative risk of developing coronary heart disease (CHD) was most strongly associated with the following factors: patients' non-adherence to treatment (χ^2 = 20.2; p<0.01; risk of CHD development – 49.8%), multimorbidity (χ^2 = 25.6; p<0.001; CHD risk – 58.7%), presence of more than two risk factors (χ^2 = 22.8; p<0.001; CHD risk – 52.1%), metabolic syndrome (χ^2 = 19.4; p<0.001; CHD risk – 46.3%), presence of two risk factors (χ^2 = 15.3; p<0.001; CHD risk – 40.9%), excessive polypharmacy (χ^2 = 17.6; p<0.001; CHD risk – 44.7%), high-level polypharmacy (χ^2 = 11.4; p<0.001; CHD risk – 31.4%), presence of at least one risk factor (χ^2 = 10.7; p<0.001; CHD risk – 30.6%) and chronic kidney disease (χ^2 = 14.1; p<0.001; risk of CHD development – 38.8%), smoking (χ^2 = 12.1; p<0.001; CHD risk – 34.7%), obesity (χ^2 = 12.8; p<0.001; CHD risk – 36.9%), arterial hypertension (χ^2 = 16.9; p<0.001; CHD risk – 41.6%), abdominal obesity (χ^2 = 11.8; p<0.001; CHD risk – 33.4%) and hypercholesterolemia (χ^2 = 10.5; P<0.001; predicted risk of CHD development – 30.1%).

Conclusion: Early assessment of the risk of coronary heart disease in long-lived individuals is important for timely detection of the disease and prevention of its complications. Based on a comprehensive assessment of risk factors, it is possible to prevent the disease at an early stage, improve quality of life and increase the possibility of healthy longevity.

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