Prevalence of Risk Factors and Features of the Course of Coronary Heart Disease among Long-Livers and Ways to Optimize its Prognosis and Prevention

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Annotation: Coronary heart disease (IHD is a disease whose main pathogenetic mechanism is organic narrowing of the coronary arteries due to damage by atherosclerosis and other causes (coronary spasm, microcirculation disorder, coronary thrombosis). Damage to the coronary arteries of the heart with subsequent insufficient supply of oxygen-rich blood to the myocardium leads to the development of metabolic (exchange) disorders and inactive connective tissue. Replacement of actively functioning myocardial cells (myocardiocytes) and the cardiac conduction system by this tissue leads to the development of heart failure, heart rhythm and conduction disorders. The prevalence of IHD among the adult population of developed countries is approximately 10%, among the elderly and old people - about 20%. Only 40-50% of patients know about their disease, in the remaining 50-60% it remains undiagnosed. With age, the functional capabilities of the body decrease, so long-livers become more susceptible to the occurrence, progression and complicated course of coronary heart disease than young people.

Keywords: Coronary heart disease, coronary heart disease, arterial hypertension, risk factors (FR), centenarians, atherosclerosis.

Consequently, the period between the onset of coronary heart disease and the development of "ischemic end points" (mortality, disability) is extremely important for pre-nosological diagnostics, prevention and treatment of this pathology, since early detection/prediction with prevention and better treatment of coronary heart disease can effectively slow down their progression. [1] No less controversial is the issue of epidemiological study of coronary heart disease in long-livers, as well as pharmacoepidemiological aspects of the problem. In recent years, there has been a tendency to reduce the duration of antiplatelet therapy in long-livers with an increased risk of hemorrhagic events. Thus, large studies (including 11,473 patients) have shown that short-term antiplatelet therapy in elderly patients with coronary artery disease can be a promising treatment strategy for minimizing the risk of bleeding without increasing the risk of "ischemic endpoints". In general, previously conducted epidemiological studies have argued that it is possible to stop the growth of "endpoints", reduce and/or mitigate the prevalence of coronary artery disease only with the help of scientifically based complex measures. Mainly screening and preventive measures, at the individual and population levels, carried out both among the entire elderly population and in the population of long-livers.

However, the prevalence of coronary heart disease varies across countries, ethnic groups, or age groups (including centenarians). Unfortunately, in Uzbekistan there are only a few works where epidemiological conditions and situations regarding coronary heart disease are analyzed mainly among the elderly and senile population. Epidemiological data on the features of early detection, clinical course, prevention and treatment among people over 90 years of age are still absent. And the significance of such results in the implementation of measures for the prevention and treatment of

coronary heart disease is great. Such a scientific position remains fair and relevant/in demand even for those countries where the medical and social policy regarding older age groups is recognized as the best. This is due to the fact that the use of the most effective drugs, the implementation of the most modern interventional and surgical interventions will be significantly less effective if those risk factors that served as the main and supporting mechanisms for the formation, progression and complications of coronary heart disease are preserved in patients.

This state of the problem, of course, dictates the need for targeted monitoring or special population studies in this direction among long-livers with the development of effective approaches by solving the problem of the psychology of pharmacotherapy in people over 90 years old, which has not yet been done in the world. In this regard, it is of great scientific practical interest to study both the epidemiological aspects of coronary heart disease and the problem of the psychology of pharmacotherapy/surveillance among the population - long-livers of Uzbekistan for the subsequent development of a program for the effective prevention of these pathologies. The cause of the development of coronary heart disease in almost 95% of cases is atherosclerosis of the coronary arteries. In the most general form, this is a violation of the fat (lipid), protein metabolism and the hemostasis system, characterized by the deposition of cholesterol (CH) and other substances in the loose connective tissue of the artery wall with the subsequent formation of specific formations - atherosclerotic plaques. The latter penetrate into the lumen of the arteries, causing its narrowing and, as a result, insufficient supply of oxygen and nutrients to the heart muscle. Lack of oxygen (hypoxia) leads to disruption of the vital activity (ischemia) of heart cells. The severity of ischemia depends on the size, quantity and location of plaques, which determine the degree of narrowing of the lumen of the arteries, the intensity and volume of blood supply to the heart. A plaque can completely close the lumen, especially if its integrity is compromised and a thrombus (clot) is formed. Along with atherosclerosis of the coronary arteries and their thrombosis, the causes of coronary heart disease can be spasm (contraction) of unchanged or affected by the atherosclerotic process coronary arteries, transient platelet aggregation and thrombosis. The following main risk factors contribute to the occurrence and progression of coronary heart disease:

➢ arterial hypertension (blood pressure >140/90 mm Hg); • impaired lipid metabolism and increased cholesterol levels in the blood;

➢ smoking;

➢ carbohydrate metabolism disorder and diabetes mellitus; • insufficient physical activity (hypodynamia);

➢ overweight (obesity);

➢ psycho-emotional stress (stress);

➢ hereditary predisposition (family history of early development of coronary heart disease).

Disorders of lipid metabolism are of a certain importance - high levels of low-density lipoprotein cholesterol (LDL) and triglycerides (TG), low levels of high-density lipoprotein cholesterol (HDL) in the blood, as well as a decrease in f. The main clinical manifestations of the disease are pain behind the breastbone, which patients describe as pressing, squeezing, bursting, burning. They most often point to the site of pain not with one finger, but with the entire palm or fist, pressing them to the sternum or to the left of it. The pain can spread (radiate) to the neck, left shoulder, left arm, back and, less often, to the lower jaw, epigastric region, right half of the chest and right arm. An attack occurs at the height of physical exertion (exertional angina). The pain can be accompanied by a feeling of fear of death, anxiety, general weakness, sweating, nausea. The duration of pain attacks does not usually exceed 15 minutes. They completely disappear after stopping physical activity or taking nitroglycerin for several minutes. Physical and psychoemotional stress, cooling, smoking, high blood pressure, heavy meals, and adverse weather conditions provoke the occurrence of angina attacks. Usually, angina attacks occur when the patient goes outside in cold, windy weather. Atypical manifestations of angina are possible: patients note a feeling of heaviness behind the breastbone, difficulty breathing, shortness of

breath, weakness, palpitations, pain in the epigastric region, and heartburn. In the case of progressive coronary heart disease and the ineffectiveness of drug therapy, which significantly worsens the patient's quality of life, coronary angiography is performed and the issue of surgical treatment of the disease is decided. Often, aortocoronary bypass surgery is used, in which a patient's own vessel (part of the leg vein or radial artery) is sewn in to bypass the coronary artery affected by atherosclerotic plaques, connecting the aorta and coronary arteries, and restoring the blood supply to the heart. In some cases, coronary angioplasty is used - insertion of a catheter with an inflatable balloon at the end into the coronary artery through the brachial or femoral artery. When the balloon inflates, the lumen of the vessel expands and coronary circulation improves. More effective than balloon angioplasty is stenting, in which a supporting stent (mesh, spiral) is installed into the lumen of the stenotic coronary artery, expanding the affected artery. Prevention Since the main cause of coronary heart disease and angina is atherosclerosis of the coronary arteries, the main direction of preventing these diseases is the identification and elimination of risk factors predisposing to the development of atherosclerosis. To improve the quality and increase life expectancy, early detection of coronary heart disease, lifestyle changes and elimination of risk factors are necessary,strict adherence to the drug therapy regimen by the patient and timely surgical treatment. In terms of identifying and correcting risk factors, special attention should be paid to patients with a high probability of developing cardiovascular diseases and their complications: men over 50 years old; the elderly; persons with a burdened heredity for coronary heart disease: in the male line - up to 55 years old, in the female line - up to 65 years old.

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