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ASPECTS OF CARDIOVASCULAR DISEASE PREVENTION IN SYSTEMIC SCLERODERMA

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Abstract: In patients with systemic sclerosis, it is important to prevent cardiovascular diseases, identify risk factors in the early stages, and predict cardiovascular risk. This helps reduce the likelihood of developing diseases and disability, as well as reduce mortality rates and improve the quality of life of patients. All this has both scientific and practical significance. Modern principles of cardiovascular disease prevention are based on taking into account the factors influencing the formation of cardiovascular risk and involve an individual approach to the prevention and control of these risks.

Keywords: *Systemic sclerosis, cardiovascular risk, risk factors, angina pectoris, myocardial infarction, hypertension*

Introduction

Despite the advances in research and treatment in recent years, the mortality rate in TSD is much higher than in other autoimmune rheumatological diseases. Several studies have been conducted to study the factors affecting the formation of cardiovascular risk in patients with TSD, to identify patients with high cardiovascular risk, and to optimize and increase the effectiveness of preventive measures [6]. In this regard, it is important to analyze the risk factors that lead to the development of complications such as chronic heart failure, myocardial infarction, and cerebrovascular disorders, and to predict the individualized cardiovascular risk score early [11].

The relevance of the problem of autoimmune rheumatic diseases for modern medicine is determined by their prevalence among the population, the difficulty of early diagnosis, the rapid development of disability, and the poor prognosis. The high risk of premature death is associated not only with the severity of the autoimmune process, but also with the rapid development of comorbid diseases (cardiovascular, oncological, pulmonary interstitial) [4].

Despite advances in medical science, the survival rate of TSD remains among the lowest among connective tissue diseases. Numerous studies have shown that the most common causes of death in TSD are lung and heart involvement [1, 13]. Cardiac involvement in particular is considered a poor prognostic marker for TSD. All cardiac structures are affected in patients with TSD. In many cases, scleroderma cardiomyopathy, left ventricular diastolic dysfunction, and cardiac arrhythmias have been found to be poor prognostic markers for TSD [1].

The prevalence of TSD in adults is 15-75 per 100,000 population, with an incidence rate of 0.45-1.9 per year. The overall survival rate for TSD has been shown to decrease significantly from the time of diagnosis, according to gender and age. Thus, the 5-year survival rate was 77.9%, and the 10-year survival rate was 55.1% [2]. At the same time, the main cause of death was found to be systemic sclerosis in 55% of patients. Despite several advances in the clinical manifestations and treatment of the disease at the end of the 20th century, there were several serious shortcomings in the study of the disease due to

its pathogenesis, rarity, variety of clinical manifestations, slow development, and the lack of a unified approach to assessing clinical forms. Due to the presence of heterogeneity, the interpretation of research results was difficult. The results of the published study were of limited value due to the small number of patients [2].

To overcome these difficulties, the European League Against Rheumatism (EULAR) has established an independent structure - the EUSTAR (The EULAR Scleroderma Trials And Research group). This structure operates and is funded in accordance with EULAR regulations, and includes research centers dealing with scientific and clinical problems of TSD. The main goal of EUSTAR is to centralize research on TSD, achieve consensus on evidence-based medicine standards, increase treatment effectiveness, and improve the quality of life and prognosis of patients. More than 100 centers have been united under the auspices of EUSTAR, which are adapted to solve fundamental scientific problems, study the clinical aspects of the disease, and conduct clinical trials. By 2013, 15 fundamental and 40 clinical projects were included in the EUSTAR list. A single database containing more than 10 thousand patients has been formed [2].

In a study of 2719 patients by a group of French scientists under the EULAR Scleroderma Trials and Research [EUSTAR] project, it was found that in patients with TSD, the mortality rate from cardiovascular (CV) complications was 31% and the mortality rate from pulmonary damage was 18%. Of the 11193 patients followed for an average of 2.3 years in EUSTAR, 1072 (9.6%) died, of which 27% were from cardiac diseases and 17% from respiratory diseases [14]. According to the latest data from ongoing cohort studies, the mortality rate from cardiovascular complications increased by 3.5 times. In addition, recent studies have shown that among patients with systemic scleroderma and lupus erythematosus, the mortality rate from CV complications associated with atherosclerosis is higher in patients with TSD [12].

Fundamentals of cardiovascular disease prevention.Cardiovascular diseases (CVDs) are currently a major socio-economic problem, as a result of which they occupy a leading position in mortality and disability in economically developed countries, as well as in developing countries.

In Europe, about 3 million people die from cardiovascular diseases every year, in the USA - 1 million, and 1/4 of those who die from cardiovascular diseases are people under 65 years of age. In Russia, the mortality rate from diseases of the circulatory system accounts for about 55% of the total mortality of the population and is currently the highest in the world. The mortality rate in Russia is 3 or more times higher than the mortality rate in economically developed countries. Unfortunately, in Russia, people of working age suffer from cardiovascular diseases, which affects the economic and social situation of the country [3].

Our President Shavkat Mirziyoyev noted at a meeting dedicated to improving the system of prevention and treatment of cardiovascular diseases in November 2021 that, according to statistics, more than 60 percent of deaths in Uzbekistan were due to diseases of the circulatory system. It turned out that in 2016-2021, cardiovascular diseases increased by 20 percent even among young people. Ischemic heart disease and arterial hypertension are the most common diseases among CVDs. In order to combat the high mortality rate due to cardiovascular diseases, it is important to use effective methods of timely diagnosis and treatment of diseases. In order to improve the prognosis of cardiovascular diseases, it is important for the republic's specialists to adhere to international standards for the treatment of cardiovascular diseases and adhere to the principles of evidence-based medicine, the President emphasized in his speech.

It is well known that the incidence of cardiovascular diseases depends on the lifestyle characteristics of the population and the risk factors associated with them. Changing lifestyle can also reduce the overall mortality rate of patients with cardiovascular diseases. For a long time, domestic and

foreign studies have shown that the combination of various risk factors can be aggravating factors, which indicates the feasibility, and even necessity, of an integrated approach to the prevention of cardiovascular diseases [8].

In this situation, it is necessary to activate the disease prevention system both at the state level and at the level of practical health services. Hypertension, angina pectoris, myocardial infarction, stroke, cardiac arrhythmias are of the greatest clinical importance among cardiovascular diseases in terms of their prevalence, impact on health, life expectancy and working capacity of the population. These diseases develop gradually due to the influence of certain factors on the human body. As a result, the concept of risk factors is distinguished. Risk factors are features of human life that contribute to the development and manifestation of the disease. All risk factors can be divided into modifiable (or changeable) and non-modifiable (non-changeable). Risk factors that can be eliminated or controlled in one way or another can be prevented. These include: excessive alcohol consumption, smoking, malnutrition, psychosocial stress, low physical activity. They affect the development of arterial hypertension, dyslipidemia and obesity. Fatal - these are risk factors that cannot be eliminated. These include: age, gender, hereditary predisposition

[3]. According to the literature, among the risk factors for cardiovascular disease, obesity is more common in women than in men, while hypercholesterolemia occurs in almost equal rates, i.e. in 58.4% of men and 56.3% of women [7].

Currently, the concept of risk factors has become a generally accepted approach to the prevention of cardiovascular diseases. There is primary and secondary prevention of CVDs. Primary prevention is a system of measures common to the entire population: it is aimed at reducing the impact of harmful risk factors on the human body, forming a healthy lifestyle in the population, preventing the development of diseases and their detection. Secondary prevention of diseases involves a set of medical, social, sanitary-hygienic, psychological and other measures aimed at early detection of diseases and preventing their exacerbation, complications and chronic course, reducing working capacity, including disability and premature death. Elimination of the main risk factors in Russia helps to increase the expected duration of healthy life of the population by 8-10 years [3].

Prevention of systemic scleroderma.Because TSD is a chronic disease, patients experience symptoms of intense pain, fatigue, and decreased physical activity. TSD often affects the most visible parts of the body, such as the face and hands, making it a socially significant condition. These changes can affect social relationships, cause functional problems, and cause the patient to feel dissatisfied with their appearance, as well as reduce their quality of life. In addition to physical disabilities, 18–65% of such patients have been reported to have high levels of depression and anxiety [15].

Conclusions. Prevention of scleroderma includes the following: treatment of vascular wall damage and prevention of complications, slowing the progression of fibrosis, treatment and prevention of internal organ damage, improving quality of life, increasing life expectancy, quitting smoking, avoiding psycho-emotional stress, avoiding cold and vasospasm-causing drugs [5]. Also, in a number of publications, in order to prevent exacerbations of the disease, patients are advised to adhere to a certain regimen, avoid cold and drafts, sun exposure, wear warm clothes to reduce the number of vasospasm attacks, and for the same purpose, patients are advised to quit smoking and stop drinking coffee [9]. When it comes to preventing TSD, the first thing to do is to identify people with risk factors and protect them from disease-causing factors, and in patients with advanced symptoms, to protect them from heavy physical labor, that is, to consider their disability. These conditions allow for an increase in the quality of life and improvement in lifestyle of patients with TSD [10].

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