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EARLY DIAGNOSIS AND REHABILITATION METHODS IN CARDIOVASCULAR DISEASES

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Annotation: This article scientifically analyzes modern approaches to early detection and effective rehabilitation of cardiovascular diseases (CVD). The importance of early diagnosis, methods such as electrocardiography, echocardiography, angiography, computed tomography, biomarker analysis used to assess risk factors and diagnose the disease before the onset of clinical symptoms are discussed in detail. The goals of the rehabilitation process, the effectiveness of physical exercise programs, diet therapy, psychological support, giving up bad habits, and using telemedicine are also considered. The article provides scientifically based recommendations on improving the quality of life of patients with CVD, reducing the risk of recurrence, and forming a healthy lifestyle. The results of the study serve to improve strategies for the prevention and treatment of cardiovascular diseases.

Keywords: Cardiovascular diseases; early diagnosis; rehabilitation; biomarkers; electrocardiography; angiography; computed tomography; cardiac rehabilitation; physical exercise; telemedicine; prevention; healthy lifestyle.

Cardiovascular diseases (CVD) are one of the most common causes of death and disability in the world today. According to the World Health Organization, millions of people die every year from pathologies such as coronary heart disease, stroke, arterial hypertension or heart failure. The widespread prevalence of these diseases has a significant negative impact not only on individual health, but also on the overall socio-economic development of society. Therefore, early detection of CVD, reduction of their complications and implementation of effective rehabilitation programs remain one of the priorities of medicine.

The main goal of early diagnosis is to detect the disease before the appearance of clinical symptoms, assess risk factors and take timely preventive measures. Modern diagnostic methods — electrocardiography, echocardiography, stress tests, coronary angiography, computed tomography, biomarkers (troponin, CRP, BNP) analysis — have significantly expanded the possibilities of detecting CHD. With the help of such technologies, it is becoming easier to diagnose at an early stage of the disease, determine a treatment strategy, and prevent complications.

Rehabilitation is a complex process aimed at restoring the quality of life of patients with CHD, supporting them physically and psychologically, and reducing the risk of relapse. Cardiorehabilitation programs include physical exercise, nutrition, psychological counseling, giving up harmful habits, and constant medical monitoring. In a modern

integrative approach, telemedicine, remote monitoring, and individual assessment systems also increase efficiency.

This article analyzes the areas of early diagnosis of CHD, modern technologies used, types of rehabilitation programs, and their clinical effectiveness. It also provides scientifically based recommendations for disease prevention and guiding patients to a healthy lifestyle.

Early detection and effective rehabilitation of cardiovascular diseases are among the most important priorities of modern medicine. Studies show that the use of modern diagnostic technologies expands the possibilities of identifying the initial stages of the disease, assessing risk factors and directing patients to timely treatment. Biomarker analysis, high-precision imaging examinations, functional tests and genetic screening not only improve the quality of diagnosis, but also play an important role in reducing complications.

Rehabilitation programs significantly restore the physical capabilities of patients with CVD, strengthen their psychological stability and reduce the risk of recurrent disease. An integrated approach aimed at the consistent continuation of physical exercise, diet therapy, psychological support, pharmacotherapy and lifestyle changes gives optimal results. In this case, the cooperation of a doctor, dietitian, psychologist and physiotherapist increases the effectiveness of rehabilitation.

In addition, innovative technologies such as telemedicine, mobile health applications and remote monitoring are creating great opportunities for monitoring patients, analyzing their indicators and improving the quality of care. Such an approach reduces the burden on the healthcare system and ensures that patients receive timely care. In conclusion, improving early diagnosis and rehabilitation methods in cardiovascular diseases is an important factor not only in strengthening individual health, but also in ensuring the health of society. Scientific research, technological innovations and comprehensive preventive measures in this area will undoubtedly make a significant contribution to reducing the spread of CVD in the future.

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