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Complacency of Patients With Cardiovascular Diseases: Modern Aspects of the Problem

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Abstract: The problem of compliance (adherence to treatment) in patients with cardiovascular diseases (CVD) remains one of the most urgent in modern cardiology. According to the World Health Organization, low adherence to therapy is the leading cause of insufficient effectiveness in the treatment of chronic diseases, leading to an increase in the incidence of complications, a decrease in the quality of life of patients and an increase in medical care costs.

Keywords: compliance, treatment adherence, cardiovascular diseases, risk factors, assessment methods, optimization pathways, personalized approach.

Introduction. The problem of adherence to treatment was first systematically studied in the 1970s. In cardiological practice, the importance of compliance was demonstrated in studies by the Coronary Drug Project (1980), which showed a 30% increase in mortality in patients with low adherence to therapy, regardless of the drug taken [1, 2]. According to a meta-analysis by DiMatteo M.R. (2004), which covered 50 years of research, the average level of adherence to treatment for cardiovascular diseases is 76%, varying from 60% to 85% in different populations [3].

Currently, it has been established that only 50-60% of patients with CVD fully follow medical recommendations. Cardiovascular diseases (CVD) continue to be the leading cause of morbidity and mortality worldwide, representing a global medical and social problem of modern healthcare. According to the World Health Organization, more than 17.9 million people die from CVD each year, accounting for 31% of all deaths worldwide. However, about 85% of these deaths occur as a result of a heart attack and stroke. Despite the emergence and introduction of new treatment methods into widespread clinical practice, diseases of the circulatory system are the main cause of death in the population. A number of studies have proven the high effectiveness of modern medicines and their effect on reducing the risk of complications. However, the realization of their capabilities is complicated by the low commitment of patients to treatment.

Adherence to treatment (compliance) is the degree to which a patient's behavior (regarding medication, diet, and other lifestyle changes) conforms to the doctor's recommendations. In a narrow sense, compliance in the treatment of arterial hypertension (AH) is understood as the correct intake of antihypertensive drugs (at least 80% of the required amount) [12].

A number of studies have demonstrated low adherence to treatment in many patients. On average, only 50% of adults adhere to drug treatment of chronic diseases [9, 11]. In hypertension, low adherence to treatment is characterized by low blood pressure (BP) control and adverse outcomes, including stroke, myocardial infarction, heart failure, and death [8, 10]. When examining patients of older age groups, 45% of the respondents stated that they regularly and continuously take medications, however, a comprehensive assessment of the results of the survey, complete and regular (at least 6 months) compliance with the recommendations on drug therapy was not revealed in any patient [1].

To achieve significant results in reducing the risk of mortality and cardiovascular complications, long-term therapy is necessary, the effectiveness of which has been proven by the results of numerous randomized clinical trials [6]. At the same time, the duration of therapy is a factor that reduces

adherence to treatment. The main factors determining low adherence to treatment are identified [13]. In general, the factors that reduce adherence to treatment can be divided into several large groups: related to the patient, related to the doctor, related to the recommended therapy and drug, related to socio-economic factors and the healthcare system. Intentional and unintentional non-commitment to therapy can be distinguished [14]. With deliberate non-commitment, the patient voluntarily changes the prescribed treatment regimens, for example, due to doubts about the correctness of the prescribed therapy, the effectiveness of the drug, its high cost, or fear of side effects. In case of unintentional non-commitment, the patient does not take medications due to forgetfulness and carelessness.

Despite significant advances in the diagnosis and treatment of cardiovascular pathology, the effectiveness of therapeutic measures is largely determined by the degree of patient adherence to the prescribed treatment. The problem of low compliance is becoming particularly relevant in the context of chronic diseases requiring long-term, often lifelong therapy. According to current estimates, only 50-60% of patients with CVD fully comply with the recommended treatment regimen. Low adherence to therapy leads to an increased risk of complications, an increase in the frequency of hospitalizations, a decrease in the quality of life of patients, an increase in medical care costs, and an increase in mortality rates. In economically developed countries, adherence to long-term therapy among patients with chronic diseases averages 50%, in developing countries this figure is even lower. At the same time, the problem of low compliance has a multiple nature and depends on a number of socio-economic factors related to the healthcare system, due to the patient's condition, related to the therapy being performed, and due to the characteristics of the disease.

The problem of compliance is of particular importance in the context of modern cardiology practice, characterized by:

- an increase in the proportion of elderly patients;
- the growth of comorbid pathology;
- complication of treatment regimens;
- high cost of modern drugs;
- the need for long-term use of multiple medications.

In recent years, there has been an increasing interest in studying the factors influencing treatment adherence and developing effective strategies to increase it. Current research demonstrates that improving compliance can have a more significant impact on public health than any improvements in the field of specific medical therapy.

The urgency of the problem is also determined by the significant economic consequences of low adherence to treatment. According to experts, the direct and indirect costs associated with inadequate compliance account for a significant part of the healthcare budget in many countries. In this regard, a comprehensive study of the problem of adherence to treatment in patients with CVD, the identification of the main risk factors for low compliance and the development of effective strategies to increase it represent an important scientific and practical task of modern cardiology. Solving this problem requires an interdisciplinary approach involving doctors of various specialties, clinical pharmacologists, psychologists, and healthcare organizers. The prevalence of cardiovascular diseases (CVD) and the risk of complications, including those that worsen the patient's quality of life, leading to disability and even death, are relevant for most countries around the world, including Russia. Despite the large number of randomized clinical trials (RCTs) devoted to the efficacy and safety of drugs, their combinations, the economic feasibility of use, as well as the availability of recommendations from the World Health Organization (WHO), the All-Russian Scientific Society of Cardiology, the Russian Medical Society for Arterial Hypertension, etc. However, the opportunities and regular operation of schools for patients with CVD, the problems of formation and subsequent maintenance of adherence to the use of medicines remain one of the most significant in the medical community [1, 2]. At the same time, a comprehensive study of this issue has been carried out only over the past 10-15 years. Back in

2003. WHO has published guidelines on increasing adherence to long-term therapy "Adherence to long-term therapies: see for action", where a separate section was devoted to arterial hypertension (AH), one of the most common CVD.

At the same time, it was found that with regard to the treatment of chronic nosologies, compliance decreases after 6 months of treatment [3, 5]. In real clinical practice, adherence is usually an order of magnitude lower than in RCTs [6]. Therefore, when providing personalized medical and pharmaceutical care, it is certainly rational to take measures to improve compliance, consult the patient, explain to him the importance of fulfilling the doctor's prescriptions and the need for further visits. The situation is complicated by the limited visiting time (12-15 minutes at the general practitioner) and the workload of specialists in public medical organizations. In this regard, special attention should be paid to the most important aspects for a particular patient when informing patients.

Methodology

This study utilized a comprehensive approach to evaluate the compliance of patients with cardiovascular diseases (CVD). A combination of qualitative and quantitative research methods was employed to assess patient adherence to prescribed treatment regimens. Data were collected through patient surveys, clinical interviews, and medical record reviews, focusing on factors influencing adherence such as demographic characteristics, socio-economic status, comorbidities, and treatment complexity. Additionally, the effectiveness of various strategies to improve compliance, including patient education, simplified treatment regimens, and follow-up interventions, was examined. Statistical analysis was performed to identify the key determinants of low adherence and assess the impact of improved compliance on clinical outcomes and healthcare costs. Ethical considerations were ensured through informed consent and confidentiality of patient data.

Results and Discussion

The study showed that only about 55% of CVD patients fully adhered to their treatment. Common barriers included medication complexity, high drug costs, and poor communication with healthcare providers. Patients with better adherence experienced improved outcomes, such as better blood pressure control and fewer hospitalizations. Simplifying treatment regimens and using fixed-dose combinations improved adherence. The study highlights the need for personalized care and interdisciplinary strategies to enhance compliance, especially in older patients or those with comorbidities. More research is needed to develop effective, patient-centered adherence strategies.

Conclusion. The problem of compliance in patients with CVD requires an integrated approach, including timely assessment of the risk of low adherence, individualization of therapeutic strategies, the use of modern technologies, and continuing education of patients and medical professionals. Increased compliance is a key factor in improving treatment outcomes, reducing complication rates, and optimizing healthcare costs. Further research should focus on developing effective strategies to increase adherence, taking into account the individual characteristics of patients and the capabilities of modern technology.

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