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НА ПЕРЕКРЕСТКЕ НАУК»

СБОРНИК  
ТЕЗИСОВ



ФИЛИАЛ ТОМСКОГО НИИЦ  
ТЮМЕНСКИЙ  
КАРДИОЛОГИЧЕСКИЙ  
НАУЧНЫЙ ЦЕНТР



РОССИЙСКАЯ  
АКАДЕМИЯ НАУК



РОССИЙСКОЕ  
КАРДИОЛОГИЧЕСКОЕ  
ОБЩЕСТВО



ТОМСКИЙ НАЦИОНАЛЬНЫЙ  
ИССЛЕДОВАТЕЛЬСКИЙ  
МЕДИЦИНСКИЙ ЦЕНТР  
РОССИЙСКОЙ АКАДЕМИИ НАУК



РОССИЙСКОЕ ОТДЕЛЕНИЕ  
МЕЖДУНАРОДНОГО ОБЩЕСТВА  
ПО СЕРДЕЧНО-СОСУДИСТОМУ  
УЛЬТРАЗВУКУ



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И ВЫСШЕГО ОБРАЗОВАНИЯ  
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# **СБОРНИК ТЕЗИСОВ**

## **XIV МЕЖДУНАРОДНОГО КОНГРЕССА «КАРДИОЛОГИЯ НА ПЕРЕКРЕСТКЕ НАУК»**

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# STUDY OF ADHERENCE TO THERAPY AND INFLUENCING FACTORS IT IN PATIENTS WITH ISCHEMIC HEART DISEASE

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**Relevance.** Ischemic heart disease is widespread among the population all over the world, including Uzbekistan, and is one of the main causes of death. Since improving the quality of life of patients with ischemic heart disease, and thereby reducing the mortality rate, is considered one of the most important goals of treatment, the most important task in achieving it is to assess adherence to treatment in patients and to identify important factors affecting the performance of medical procedures. In general, chronic forms of ischemic heart disease (IHD) account for 43% of deaths of men who died from CVD in Russia, while in the United States there are significantly less - 36.8%, and in the female population the differences between the countries are even more pronounced - 40.2% and 30.8%, respectively. One of the reasons why the results of treatment of CVD patients in real clinical practice are worse than randomized clinical trials demonstrate is the problem of low adherence of patients to treatment. According to the World Health Organization (WHO), adherence to treatment is the degree of compliance of human behavior (with regard to medication, diet and/or other lifestyle changes) with the recommendations of a doctor or medical professional. According to scientific studies of domestic and foreign scientists, poor adherence to treatment correlates with the development of adverse cardiovascular events in patients with chronic forms of IHD, including after myocardial infarction (MI). In addition, some studies have established a relationship between adherence to treatment and the quality of life of patients. According to WHO, quality of life is the perception by individuals of their position in life in the context of the culture and the system of values in which they live, in accordance with goals, expectations, norms and concerns. The quality of life is determined by the physical, social and emotional factors of a person's life, which are important to him and have a direct impact on him. Quality of life indicators are increasingly used in assessing

the effectiveness of diagnostic and therapeutic measures, economic calculations, for example, the number of saved years of quality life.

**Objective.** Analysis of adherence to treatment, the factors affecting it, and the quality of life of patients with IHD.

**Material and methods.** The study consistently included all patients who sought medical assistance at the consultative and diagnostic polyclinic of the multidisciplinary clinic of the Tashkent Medical Academy and agreed to participate in the survey to determine the degree of adherence to treatment, the level of life, and the factors influencing the commitment. The number of the study group was 104 people. All patients signed an informed consent form. The Morisky-Green compliance scale, consisting of 4 questions regarding patients' compliance with the drug regimen, was used to analyze patients' adherence, and the factors affecting adherence were studied using a questionnaire in order to obtain data of interest in this study. The international questionnaire EuroQol EQ-5D-5L was used to assess the level of quality of life of patients. In 1995. The Russian version of EQ-5D was registered by the International Organization for the Study of quality of life (ISQOL), the use of which is allowed without the consent of the developers of the questionnaire. The first part of the questionnaire is designed to assess the state of an individual's health by 5 components reflecting mobility (movement in space), self-service, activity in everyday life (work, study, housework, participation in family affairs, leisure), the presence of pain/discomfort and anxiety/depression. The second part of the questionnaire is the visualizing analog scale VAS. This is a 20-centimeter ruler, on which «0» means the worst possible, and «100» means the most excellent state of health. Statistical processing was carried out using the STATISTICA 10.0 program. The description of quantitative data in the case of the normal law of distribution was carried out in the form

# STUDY OF THE INFLUENCE OF METEOROLOGICAL FACTORS ON THE COURSE OF ARTERIAL HYPERTENSION

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**Relevance.** In recent years, the issue of the influence of meteorological factors on the human condition has been of great interest. The response to the effects of climate and weather changes varies from person to person and is related to the degree of adaptation to a particular climatic environment. The cardiovascular system is considered the most sensitive to the effects of meteorological factors and is one of the first to be involved in the process of adaptation to them. As a result, exacerbations of many cardiovascular diseases are associated with weather conditions and fluctuations in solar and geomagnetic activity. Meteosensitivity is a physiological feature of the human body to be susceptible to the influence of climatic and weather factors. Meteopathic reactions are pathological reactions to sudden or uncharacteristic (abnormal) fluctuations in weather factors in a familiar climate. The main distinguishing features of meteopathic reactions are the simultaneity and mass occurrence of their occurrence in persons with the same type of diseases under adverse weather conditions, deterioration of the condition coinciding with changes in weather conditions, short duration and relative stereotyping of these disorders in the same patient in similar weather situations. There are indications in the literature of a decrease in exercise tolerance, general performance, as well as a deterioration in blood clotting and microcirculation, lipid profile, changes in vascular tone in patients with hypertension during the formation of adverse weather conditions. The mechanism of these reactions has not been sufficiently studied today. An urgent problem is the detection of predictors of the development of meteopathic reactions to assess the individual risk of their occurrence for prevention and correction. It is known that patients with arterial hypertension are the most sensitive to meteorological factors. There is

evidence of a decrease in exercise tolerance, overall performance, as well as a deterioration in blood clotting and microcirculation, lipid profile, and changes in vascular tone in patients with hypertension during the formation of adverse weather conditions. Today, despite the numerous works devoted to this problem, there is an inconsistency of data on the degree of influence exerted on the development of the pathology in question.

**The aim** of the work was to study the influence of meteorological factors on the course of hypertension.

**Materials and methods of research.** The study included 68 patients (47 women and 21 men) aged 35 to 72 years with grade 2 hypertension. The average age was  $53.5 \pm 6.3$  years. All patients underwent a comprehensive examination, including a full examination, collection of complaints, anamnesis, measurement of office blood pressure, clinical and biochemical blood tests, and a study of blood viscosity. To assess the severity of meteorological reactions, patients filled out a questionnaire that included questions on the nature and intensity of complaints associated with meteorological factors. They also assessed which natural phenomena affected the patient's well-being to what extent. The answers were expressed in points.

**Results.** According to the study, it was found that most often reactions in patients with arterial hypertension caused sharp fluctuations in atmospheric pressure – 73.4% of respondents, air temperature – 64.3%, magnetic storms – 67.1%. Each patient's well-being was influenced by two or more factors. The most common complaints related to meteorological factors were headaches, increased blood pressure, drowsiness, weakness and decreased performance. A moderate negative correlation between meteorological factors and heart rate was revealed, an analysis of the effect of air

temperature on the course of hypertension showed that in men, an increase in blood pressure depends on the air temperature on that day, as well as for 5-6 days after it. In women, an increase in blood pressure has a high correlation with the average daily air temperature over the next 2-3 days.

**Conclusions.** Meteopathic reactions most often develop in patients with hypertension with sudden changes in weather conditions: temperature, atmospheric pressure, relative humidity, uncharacteristic indicators of climatic and weather factors: magnetic storms, during heat and at high atmospheric pressure. The increase in blood pressure in women, compared with men, is largely due to changes in meteorological factors. The most frequent complaints during meteopathogenic periods were headaches and an increase in blood pressure.

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