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**REGIONAL SCIENTIFIC BASES OF PREVENTION OF CASES OF
HYPERTENSION (BASED ON THE RESULTS OF 31-YEAR
SCREENING)**

Resume: The article discusses the basic principles and stages of diagnosis of this pathology, risk groups for the development of hypertension, features of the organization of preventive programs.

The basic principles of the application of the blood pressure self-monitoring system in organizations and public places are considered. Keywords: arterial hypertension, prevention of cardiovascular diseases, organizational technologies, self-monitoring of blood pressure, patient education.

Key words: prevention, screening, hypertension.

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**РЕГИОНАЛЬНЫЕ НАУЧНЫЕ ОСНОВЫ ПРОФИЛАКТИКИ
СЛУЧАЕВ ГИПЕРТОНИЧЕСКОЙ БОЛЕЗНИ (ПО РЕЗУЛЬТАТАМ
31-ЛЕТНЕГО СКРИНИНГА)**

Резюме: В статье рассмотрены основные принципы и этапы диагностики этой патологии, группы риска по развитию артериальной гипертензии, особенности организации профилактических программ.

Рассмотрены основные принципы применения системы самоконтроля артериального давления в организациях и общественных местах. Ключевые слова: артериальная гипертензия, профилактика сердечно-сосудистых заболеваний, организационные технологии, самоконтроль артериального давления, обучение больных.

Ключевые слова: профилактика, скрининг, гипертоническая болезнь.

Relevance. Despite the currently available wide arsenal of methods for the diagnosis and treatment of hypertension, in most countries of the world it is not possible to achieve adequate control of this disease [3,5]. Hypertension is still the most important preventable FR CVD, the impact on which can reduce cardiovascular and OS, which is extremely important for our country, where diseases of the circulatory system firmly hold the first place in the structure of OS[1].

The study of hypertension should be based on regular monitoring of changes in its epidemiological characteristics. The prevalence of hypertension in the world is heterogeneous. However, even in the countries that have achieved the greatest success in the treatment and control of hypertension, from the nineties of the twentieth century to the present, the frequency of hypertension has not been reduced [4,6].

An increase in the frequency of hypertension with age was shown even on the materials of the Framingham study, confirmed in numerous population studies. Since the middle of the XIX century, scientists have noted a decrease in the birth rate with a decreasing mortality rate in developed countries[2,5].

The increase in the share of the elderly in the population has been called "demographic aging of the population". It is expected that the total number of people with hypertension in the world will increase from 972 million to 1.56 billion people in the period 2010-2025[6].

AG is a significant economic problem. The importance of assessing the EC of this disease is due not only to the costs of the healthcare system, but also to the economy of the country as a whole[2].

In this regard, an urgent task is to be able to predict changes in the EC in the event of a shift in the epidemiological parameters of the disease: the

frequency of hypertension, coverage of treatment and its effectiveness, or the introduction of MPP[7].

In our country, to date, single studies have been carried out concerning only some economic aspects of hypertension, but no comprehensive assessment of the EC from hypertension, taking into account its contribution to the development of not only CVD, but also other CNID has been carried out.

An adequate calculation of the EC associated with hypertension is possible only on the basis of the epidemiological characteristics of hypertension in RP, as well as information on the RR of morbidity and mortality associated with increased blood pressure, with the presence of hypertension. It is important to show their economic feasibility to substantiate the MPP[1,4].

Economic arguments are often the most significant for decision makers when choosing measures aimed at improving public health and determining the volume of investments.

The effectiveness of the MPP complex implemented at the population level to reduce blood pressure in response to a decrease in PS has been demonstrated.

However, the implementation of such measures in the Republic of Uzbekistan it is necessary to search MPP with proven efficacy and potential implementation in the country, taking into account existing organizational mechanisms[3,6].

So relevant and practical is a study, which can provide a deep and detailed analysis of the key epidemiological characteristics of the AG to predict measures of a preventive intervention at the population level in the Republic of Uzbekistan.

The aim of the study is to study the prognostic significance of this condition on the basis of the natural course of arterial hypertension in the Uzbek population, assess the economic damage from arterial hypertension, develop a set of population prevention measures and build a model for predicting the potential effectiveness of their implementation.

Materials and methods of research. We selected a total of 120 patients with arterial hypertension to fulfill the task set for us and laid in them a regional scientific basis for the prevention of this disease.

The results of the study. The average blood pressure values among the examined were: SAD - 133.7 mmHg, DAD - 82.4 mmHg, men significantly higher than women ($P < 0.001$), an increase in these indicators with age was quite expected ($P < 0.001$).

An inverse relationship of SAD and DAD levels with an increase in UO ($p < 0.001$) was revealed. Blood pressure values are higher among rural residents than those living in the city ($p < 0.001$). An increase in income is associated with an increase in blood pressure, but only among women ($p < 0.001$).

During the analyzed 20-year period, there was a significant increase in the frequency of hypertension in the population to 45.7%, mainly due to men. There was a decrease in awareness of the presence of the disease and coverage of treatment, compared with the beginning of the XXI century. Only half of people with hypertension take AGP, of which slightly less than half are treated effectively. An important aspect in the study of treatment adherence is the revealed decrease in QL against the background of AGP, regardless of effectiveness.

At the same time, there is a constant increase in the effectiveness of treatment over the entire follow-up period among those taking AGP, but only one in seven men and less than a third of women with the disease control blood pressure.

Epidemiological analysis of hypertension would be incomplete without finding barriers to improving hypertension control in the Republic of Uzbekistan. The analysis of factors associated with the presence of hypertension, low awareness of the disease, lack of treatment or its ineffectiveness allowed us to identify the most important of them.

Associated with AG EU in the Republic of Uzbekistan, amounted to about 1% of the country's GDP. The analysis made it possible to identify the share of damage associated with each CNID included in the analysis. The analytical search carried out within the framework of this study examined the negative effects of IBS and MPP aimed at reducing PS.

Those measures are highlighted, the effectiveness and significance of which has been convincingly proven, but have not yet been taken in due volume in the Republic of Uzbekistan. Modeling of the decrease in the population level of blood pressure with a reduction in PS and forecasting of the effectiveness of measures aimed at reducing salt consumption in the Republic of Uzbekistan was carried out.

The continuation of prospective observation in the cohort will allow obtaining new information about fatal and non-fatal events among the examined men and women to study the prognostic value of hypertension in a number of other factors that form the mortality rate in the country.

The prevalence of arterial hypertension in the Republic of Uzbekistan in this study was 45.7%. During the 31-year follow-up period, there was a statistically significant increase in this indicator from 39.2% to 45.7% ($p < 0.0001$).

During the 20-year monitoring period, gender differences in the characteristics of arterial hypertension are recorded: among men, the incidence of hypertension has significantly increased (from 39.3% to 48.4%) and surpassed that among women (from 41.1% to 43.4%); with the observed increase in awareness of the presence of the disease, coverage of treatment and its effectiveness, among men, these indicators remain statistically significantly lower compared to women ($p < 0.001$).

The quality of life of patients with arterial hypertension on the background of antihypertensive therapy is significantly lower compared to those who do not receive therapy ($p < 0.0001$), regardless of its effectiveness.

The presence of arterial hypertension is statistically significantly associated with a deterioration in survival ($p < 0,0001$), including cardiovascular ($p < 0,0001$) in the RUz. The lowest survival rates are in inefficiently treated patients with arterial hypertension.

According to the results of multivariate analysis, factors such as age increase, myocardial infarction (HR: men – 2.62, $P < 0,0001$, women: – 2.49, $P < 0,01$) and smoking (HR: men – 1.98, $P < 0,001$, women – 2.51, $P < 0,0001$) make a significant contribution to the overall mortality of the Uzbek population. For cardiovascular mortality, significant factors are myocardial infarction for men (HR 6.36, $p < 0,0001$) and the presence of arterial hypertension for women (HR: 4.18, $p < 0,01$). For the heart (OR: 4.18, $p < 0,01$).

In the Republic of Uzbekistan, arterial hypertension is associated with significant economic damage, which in 2016 amounted to 869,907.9 million rubles, that is, about 1% of the country's gross domestic product. The damage is caused mainly by losses caused by premature mortality from chronic non-communicable diseases, the risk of which is associated with arterial hypertension.

Mathematical modeling of the effect of reducing salt intake by 4.4 grams per day showed that due to a statistically significant decrease in blood pressure, the proportion of people controlling arterial hypertension doubled - from 23.1% to 46.6% ($p < 0.001$).

Conclusion. Modern ideas about arterial hypertension, formed on the basis of epidemiological studies, include such concepts as "target" blood pressure, which is the same for patients of all ages — less than 140 and 90 mmHg; for diabetic patients, target blood pressure should be less than 130 and 80 mmHg, and "risk reduction", "assessment of the risk of CVD and their complications".

In the Republic of Uzbekistan, the prevalence of hypertension is high, which is partly explained by the lack of awareness of the population about the principles of a healthy lifestyle and poor compliance with them. The

asymptomatic course of hypertension, its high prevalence and the rapid development of complications require systematic measures of secondary (early detection) and tertiary prevention at the stage of primary care.

The complex of measures for the treatment and supervision of a patient with hypertension by a general practitioner includes an assessment of the risk of complications of cardiovascular diseases, treatment to a decrease in blood pressure of less than 140/90 mmHg or less than 130/80 mmHg; lifestyle changes; drug therapy; ensuring the implementation of doctor's recommendations through patient training.

The reasons for the unsatisfactory implementation of medical recommendations need to be clarified, and to eliminate them, use methods of non-directive counseling, individual and group patient training.

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