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Correlation of Arterial Hypertension with Salt and Sympato-Adrenal System among Employees UZ-AV to Motors in Andijan Region

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RESUME. The article is devoted to the problem of the relationship between the consumption of table salt and the sympathoadrenal system among employees of uz-avto motors in the Andijan region. The results of international multicentre, randomized, prospective, clinical and epidemiological studies from late 20th and early 21st century are analysed. It has been shown that the level of salt consumption in the world differs significantly. The direct relationship between the amount of salt intake and the sympathoadrenal system leading to the identification of arterial hypertension (AH) was examined.

KEY WORDS: Sympathoadrenal system, arterial hypertension, salt intake.

I. RELEVANCE

High blood pressure (BP) is one of the leading risk factors for the development of coronary heart disease, strokes and end-stage renal disease [5]. In the modern view, the level of blood pressure is far from the only criterion for the severity of hypertension and cannot be the only goal of therapy. With all the simplicity of the approach to the treatment of hypertension, based solely on blood pressure control, the concept of the need to search for and practical use of other methods of control, both for the blood pressure level and for the entire complex of the pathogenetic cascade inherent in hypertension, remains and strengthens. It has been established that patients with hypertension who steadily control blood pressure levels within the target values, nevertheless, have a higher risk of developing CVD than people without hypertension [4]. This indicates that in hypertension, the pathogenetic mechanisms of structural and functional changes in the cardiovascular system (CVS) are largely implemented at the subclinical level and can continue to be realized regardless of the blood pressure level. Undoubtedly, the effectiveness of therapy for hypertension is the achievement of target BP figures. Controlling other risk factors, such as blood glucose levels, dyslipidemia, alcohol consumption, smoking, dietary habits, NaCl (salt) intake, sedentary lifestyle, obesity, is just as important as antihypertensive in terms of preventing the development of target organ damage. therapy. The complexity of interpreting lifestyle factors is often underestimated and leaves them aside from day-to-day treatment regimens [4, 5]. From the point of view of clinical practice, it is important to consider two fundamental questions regarding the use of salt and the development of hypertension. The first is to assess the volume of salt consumption in different territories in different socio-economic groups of the population (the so-called environmental study) and to determine the effect of salt consumption on the blood pressure level and the risk of CVD, as part of the so-called natural nutritional background, in natural environmental conditions [1, 2, 3]. The second is to assess the effectiveness of the use of regulated salt intake on the level of blood pressure and the risk of developing CVD. At the present stage of development of the problem of humoral regulation of rational nutrition at various physical loads, the ideas of leading scientists about the neuro-hormonal regulation of the sympatho-adrenal system have played an important role [4].

Purpose of the study. The work is based on the study and study of the role of the nature of dietary salt nutrition in the regulation of the functional state of the sympatho-adrenal system during intense muscular activity and in conditions of increased physical activity of the body among the employees of UZ-AVTO MOTORS in the Andijan region.

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II. MATERIAL AND RESEARCH METHODS

The study included information on the medical care performed among 62 patients with hypertension (43 men and 19 women) who worked at UZ-AVTO MOTORS in Andijan region.

Research results. At the beginning of the study date range (2018), out of the study cohort of patients (as of 62 people), only 17 individuals had an established diagnosis of hypertension and were under dispensary 2019 observation. The coverage of the studied cohort of patients with clinical indicators varied significantly in different years. The study also noted that the level of education affects the structure of nutrition in general and salt intake in particular. The lower the level of education, the more was the consumption of Na +, alcohol, the higher the small body index and the lower the excretion of K + salts [32, 33]. These patients had higher SBP and DBP levels. There were workers (62 people) in the most capable age group aged 40-59 years. One of the main conclusions of the study was that the efforts made by society to increase the general educational level of the population have a specific effect both on the dietary structure of people and on the control of risk factors for CVD. Of course, each of the dietary factors contributed to the formation of high blood pressure, many of them are interrelated, but sodium salts firmly occupied their place in this series, requiring proper attention. In virtually all studies, salt intake is higher in men. This fact is associated in many respects with the greater consumption of food by men than by women and, therefore, salt, as such [4]. The results of the work are of practical importance for elucidating the peculiarities of the exchange of catecholamines in connection with malnutrition and physical inactivity in the genesis of atherosclerosis, ischemic heart disease, obesity and other metabolic diseases. The dependence of the functional state of the sympatho-adrenal system on the nature of the incoming salt can be used as the basis for the prevention of the above diseases.

At the beginning of the study date range (2018) from the study cohort patients (as of 2019 - 62 people), only 17 people had an established diagnosis of hypertension and were under dispensary observation. However, in some patients, the quality of medical care was not assessed due to the insufficient completeness of the clinical data available in the primary documentation. The coverage of the studied cohort of patients with clinical indicators varied significantly in different years. By 2019, the completeness of data in outpatient charts for all clinical parameters necessary for calculating indicators was sufficient in 72.6–87.1% of patients.

The rest of the measures were somewhat less effective: by 2018–2020. the proportion of smokers has slightly increased; the proportion of people with increased body weight practically did not decrease during the entire period, despite the ongoing educational work; the overwhelming majority of patients with hypertension continued to eat irrationally, despite the explanations on the peculiarities of the diet in hypertension. Cholesterol control and blood pressure control remain the key "problematic" components of medical care for patients with hypertension at the Center for Emergency Medicine. The results of the work are of practical importance for elucidating the peculiarities of the metabolism of catecholamines in connection with malnutrition and physical inactivity in the genesis of atherosclerosis, ischemic heart disease, obesity and other metabolic diseases. The dependence of the functional state of the sympatho-adrenal system on the nature of the incoming food can be used as the basis for the prevention of the above diseases.

Output. A direct relationship has been proven between the amount of salt intake and the prevalence of arterial hypertension. This relationship can be traced even at the initial, subclinical stages of the development of arterial hypertension, when the absolute levels of arterial pressure are still within the normal range. The risk of development and an increase in mortality from cardiovascular diseases is associated with increased salt intake, even at relatively low blood pressure levels. To increase the efficiency of mass preventive examinations, a short questionnaire and a tactical examination algorithm for the detection of cardiovascular diseases have been developed and implemented. The three-group system of prophylactic medical examination of the population is supplemented with specific recommendations for the prevention of early forms of hypertension.

Thus, verification of the diagnosis of hypertension can be reduced to the problem of criteria for this syndrome. Based on the accepted hypothesis of MS as an independent nosological form, it is necessary to diagnose this disease in all cases when the patient has signs of any of the syndromic diseases (hypertension, coronary artery disease, and / or type 2 diabetes), in explicit or latent form.

Accordingly, the differential diagnosis of MS should be carried out between the listed diseases, as forms of MS, and the corresponding syndromes, as manifestations of some other diseases. Symptomatic hypertension, hereditary dyslipidemias, etc., which will determine ways of prevention and pathogenetically grounded metabolic therapy.

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