

THE IMPORTANCE OF LIFESTYLE FACTORS IN THE MANAGEMENT OF HIGH BLOOD PRESSURE

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Abstract: Hypertension, or high blood pressure, is the most widespread chronic condition globally, characterized by elevated arterial pressure. Its insidious nature lies in the fact that it is frequently asymptomatic and often detected only after the onset of severe complications. This article provides a comprehensive overview of the prevalence of hypertensive disease, its etiology, and risk factors. Furthermore, it explicitly highlights the critical role of lifestyle modifications in the prevention and effective management of this pathology.

Keywords: Hypertension, arterial pressure, myocardial infarction, stroke, prevention, healthy nutrition, lifestyle.

Introduction

Unlike other forms of hypertension (secondary hypertension), essential or primary hypertension is not a consequence of kidney or endocrine gland diseases but rather stems from a disruption in the regulation of blood pressure. Long-term untreated high blood pressure is a precursor to severe complications such as heart failure, coronary heart disease, cardiac hypertrophy, stroke, myocardial infarction, dementia, cognitive impairment, and hypertensive retinopathy. Additionally, diabetes mellitus, obesity, an unhealthy diet, and a sedentary lifestyle act as compounding risk factors.

The global burden of this disease is significant. According to recent data from the World Health Organization (WHO), an estimated 1.28 billion adults aged 30–79 years worldwide have hypertension, with two-thirds living in low- and middle-income countries. Furthermore, approximately 46% of adults with hypertension are unaware that they have the condition, making prevention and early screening of paramount importance.

Results

Hypertensive disease accounts for the majority of cases (up to 75%) of elevated blood pressure in humans. Clinically, hypertension is defined as a systolic blood pressure of ≥ 140 mmHg and/or a diastolic blood pressure of ≥ 90 mmHg. For high-risk patients, recent guidelines suggest even tighter control targets to minimize cardiovascular events.

Etiology and Pathogenesis

Hypertension is a pathology often rooted in nervous system dysregulation. Psychological distress, emotional burden, and traumatic experiences serve as triggers. Continuous exposure to stressors affects the higher centers of the brain, resulting in persistent foci of excitation. These foci disrupt the regulation of vascular tone, causing blood pressure to fluctuate even due to minor causes.

As the disease progresses, neurohormonal mechanisms reinforce the maintenance of high blood pressure. In the initial stages, patients may experience headaches, palpitations, occasional



chest pain, and occipital discomfort. Later stages are characterized by dizziness, tinnitus, numbness in the extremities, visual disturbances, sleep disorders, and rapid fatigue.

Treatment Approaches

Patients must strictly adhere to medical advice regarding the balance of work and rest to prevent neuropsychological strain. While passive relaxation (reading, watching TV) is common, the human body dissipates nervous fatigue most effectively during physical activity. Therefore, daily walking and sports are essential.

It is crucial to distinguish essential hypertension from symptomatic (secondary) hypertension, where pressure elevation is a symptom of another underlying condition. In essential hypertension, sustained high pressure is linked to arterial constriction and a decrease in sodium chloride (salt) excretion by the kidneys. Therefore, modern therapy often includes diuretics to enhance salt excretion and vasodilators to reduce vascular resistance. However, pharmacological treatment alone is insufficient without lifestyle management.

The Role of Lifestyle Factors

-Physical Activity: Insufficient physical activity is a major risk factor. Research indicates that regular aerobic exercise reduces resting blood pressure by 5–7 mmHg in hypertensive individuals. Moreover, sedentary behavior is responsible for approximately 5% to 13% of the prevalence of hypertension. A minimum of 150 minutes of moderate activity per week is recommended.

-Nutrition: High salt intake (>5g per day), and a deficiency in potassium and magnesium increase blood pressure. The DASH diet is highly recommended. Clinical trials have demonstrated that adherence to the DASH (Dietary Approaches to Stop Hypertension) diet can reduce systolic blood pressure by 8–14 mmHg, which is comparable to the effect of monotherapy with antihypertensive medication.

-Overweight and Obesity: For individuals with a BMI over 30, the risk of hypertension increases by 3-4 times. Research indicates a strong linear relationship between body weight and blood pressure; specifically, losing just 1 kg of body weight can reduce systolic blood pressure by approximately 1 mmHg.

-Stress: Chronic stress activates the sympathetic nervous system, raising blood pressure.

-Alcohol and Tobacco: These substances cause vasoconstriction and elevate pressure, posing significant harm to the cardiovascular system.

Treatment and Prevention Based on Lifestyle Changes

-Physical Activity: Walking, running, cycling, swimming.

-Diet: DASH diet, strict salt restriction.

-Weight Management: Eliminating excess weight to lower vascular resistance.

-Stress Management: Meditation, breathing exercises.

-Habit Cessation: Quitting alcohol and tobacco.



-Sleep Hygiene: Improving sleep quality.

One of the main approaches in modern medicine is that prevention is better than cure. From this perspective, every citizen must be responsible for their own health, choose a healthy lifestyle, and undergo regular medical check-ups.

The Importance of Medical Screening and Monitoring

Regular blood pressure monitoring and screening facilitate the early detection of hypertension, allowing for timely intervention before end-organ damage occurs.

Conclusion

Combating hypertension is not solely the responsibility of physicians but is intrinsically linked to the healthy choices individuals make in their daily lives. Only a comprehensive approach—integrating medical, psychological, and social measures—can yield sustainable positive results. Community awareness, medical literacy, and a prevention-based approach are of significant importance. Modern pharmaceuticals combined with strict adherence to lifestyle modifications make it possible to maintain arterial pressure at necessary levels, preventing severe complications like atherosclerosis, stroke, and heart failure.

REFERENCES:

1. World Health Organization (WHO). (2021). [General reference to data used throughout the text. Global Hypertension Facts].
2. Ministry of Health of the Republic of Uzbekistan. (2023). National Program for the Elimination of Cardiovascular Diseases.
3. Mayo Clinic. (2024). Hypertension: Lifestyle and home remedies.
4. Health Encyclopedia (Salomatlik Ensklopediyasi).
5. <https://gemotest.ru>
6. European Society of Cardiology. (2023). Guidelines for the management of arterial hypertension

