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MONITORING OF HIGH BLOOD PRESSURE DEPENDING ON SOME MEDICAL AND SOCIAL RISK FACTORS

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In this article the analysis of the detection as prehypertension and hypertension depending on the major risk factors. Acting on risk factors, we contribute to the prevention of damage to target organs, leading to the development of high blood pressure. It is of great importance in the prevention of cardiovascular diseases and their complications.

Key words: prehypertension, hypertension, risk factors, population.

As is known, the wide prevalence of arterial hypertension (AH) in the adult population and its unfavorable prognosis determines increased professional interest in all aspects of this disease. Naturally, not only cardiologists, but also doctors of all specialties, especially specialists in the field of epidemiology and prevention of cardiovascular diseases, should not remain aloof from this serious medical and social problem, since the “intervention” of hypertension in the form of a pandemic of modern humanity continues [1,3]. In connection with the above, the development of unified approaches to early diagnosis, treatment and prevention of hypertension in the modern population is very important, timely and in demand.

It is well established that the high prevalence of arterial hypertension (AH) in the adult population, along with its unfavorable prognosis, underlies the sustained professional interest in all aspects of this condition. Contemporary preventive cardiology has long been concerned with the issue of prehypertension, which is currently regarded as an independent risk factor for the development of cardiovascular complications. Accordingly, not only cardiologists but also physicians of all specialties—particularly experts in epidemiology and the prevention of cardiovascular diseases—should not remain indifferent to this significant medical and social problem, as the “intervention” of AH, manifesting as a pandemic, continues to affect modern humanity [1, 6, 4].

As early as the previous century, experts from international organizations concluded and emphasized that so-called risk factors, including AH, exert a profound impact on the burden of noncommunicable diseases [9]. In such an epidemiological context, the only cost-effective and sustainable approach to controlling chronic diseases, including AH and other risk factors, within the public health system is the implementation of epidemiological surveillance of risk factors combined with active population participation in preventive measures [9, 4, 7].

Even in the last century, experts from international organizations came to the conclusion and argued that the so-called risk factors, which include hypertension, have an extraordinary impact on the burden of non-communicable diseases [5]. In such an epidemiological situation, the only cost-effective and sustainable approach to the control of chronic diseases, including hypertension and other risk factors (RFs) in the public health system is the implementation of epidemiological monitoring of risk factors and the participation of the population in preventive measures [2,4].

Purpose: analysis and comparative assessment of the detection of prehypertension and arterial hypertension depending on some medical and social risk factors in the Fergana Valley.

Materials and methods: The material for this study was the results of a one-time epidemiological study of random representative samples from the unorganized male and female population aged > 15-70 years living in Andijan. 2 samples were formed, among the female and male population > 15-70 years old. The survey coverage was 280 (76.9%) and 323 (89.5%) people. A comprehensive survey of the population was carried out using biochemical, epidemiological, instrumental, clinical and survey research methods.

Results: having studied some medical and social risk factors, we were able to identify certain epidemiological trends in this aspect. Table 1 presents a comparative description of the detection rate of PrH and hypertension in the population > 15-70 years old, depending on professional activity.

Table 1

Comparative characteristics of the detection of PrH and hypertension in a population > 15-70 years of age, depending on professional activity

Characteristics of the marital status of those surveyed		High blood pressure				Difference statistics by t-test (P)		
		PrH (1)		AH (2)				
		available PrH n (%)	not available PrH n (%)	available AH n (%)	not available AH n (%)	P<0,05	P<0,01	P<0,001
Workers	32	102 (77,3)	30 (22,7)	71 (53,8)	61 (46,2)	-2		
Entrepreneurs	66	26 (15,7)	140 (84,3)	6 (3,4)	160 (96,3)			-2
Unemployed	01	29 (9,7)	272 (90,3)	25 (8,4)	276 (91,6)			
Unfavorable social status		4 (66,7)	2 (33,3)	3 (50,0)	3 (50,0)	-2		

As can be seen from the data presented in table 1, the detection rate of high blood pressure (HBP) varies significantly depending on the type of professional activity and is: among workers on average 65.6% (77.3%, PrH and 53.8% AH, P <0.05), among entrepreneurs - 19.1% (15.7% PrH and 3.4% AH, P <0.001), among the unemployed - 18.1% (9.7% PrH and 8.4% AH , P>0.05) and in persons with unfavorable social status (USS) – 58.4% (66.7% PrH and 50.0% AH, P<0.05).

To the greatest extent, cases of PrH and hypertension are associated with USS; HBP is determined with high frequency in the working population group and the number of people with prehypertension is significantly greater than that of hypertension.

When analyzing the comparative characteristics of the detection of PrH and AH among the surveyed population, depending on housing conditions (Table 2), we found that in the group of the population with satisfactory living conditions, the frequency of HBP is 44.9% (28.5% PrH and

15 .9% AH, P<0.05), among people with good conditions – 47.9% (27.9% PrH and 20.0% AH, P>0.05) and in the presence of poor living conditions – 23.1% (14.3% PrH and 8.8% AH, P<0.05).

Table 2

Comparative characteristics of the detection of PrH and hypertension in a population > 15-70 years of age, depending on living conditions

Characteristics of living conditions		High blood pressure				Difference statistics by t-test (P)		
		PrH (1)		AH (2)				
		available PrH n (%)	not available PrH n (%)	available AH n (%)	not available AH n (%)	P<0,05	P<0,01	P<0,001
Satisfactory	107	59 (28,5)	148 (71,5)	33 (15,9)	174 (84,1)	-2		
Good	305	85 (27,9)	215 (71,2)	61 (20,0)	244 (80,0)			
Bad	91	13 (14,3)	78 (85,7)	8 (8,8)	83 (91,2)	-2		

In general, the data obtained indicate that with the deterioration of the living conditions of those surveyed, the frequency of HBP increases to 67.5% compared to the rates of HBP in the group of people with good living conditions (47.9%), that is, almost in 1.5 times (P<0.05).

Conclusions: based on the results of the study, we can conclude that periodic epidemiological studies aimed at identifying prehypertension and arterial hypertension, depending on the main, most common risk factors, provide reliability and accessibility for assessing true situations regarding high blood pressure.

Thus, evidence-based prevention of behavioral risk factors can prevent the epidemic of arterial hypertension, that is, simple changes in behavior and lifestyle can significantly contribute to the prevention of dangerous cardiovascular complications and improve public health.

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