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ON THE PROBLEM OF STUDYING THE FUNCTIONAL STATUS OF THE PARAMETERS OF THE BLOOD CIRCULATION SYSTEM IN WOMEN OF REPRODUCTIVE AGE IN THE CONDITIONS OF THE REPUBLIC OF KARAKALPAGSTAN

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Abstract

The article discusses the issues of studying the functional status of circulatory system parameters in women of reproductive age in the conditions of Karakalpakstan. Reproductive health is one of the main indicators of the health status of the population and is an important criterion for the health of the population and the changes occurring in it. The most significant changes in hemodynamic parameters were changes in systolic and diastolic blood pressure, which reached the greatest values in the oldest age group.

Keywords: Karakalpakstan, reproductive health, circulatory system, parameters, flexibility.

Introduction

In modern biomedical research, the need to use reliable diagnostic tests to monitor health status is of particular importance.

Currently, different methods of assessing the state of adaptation are used to determine the health status of different population groups within populations. One of the most convenient methods is to determine the parameters of the circulatory system – a simple and effective way to assess the functional state of the cardiovascular system and its adaptation (Baevskiy R. M., 2014).

In the conditions of the Republic of Karakalpakstan, the problem of adaptation of the organism to unfavorable external conditions does not lose its relevance,

questions about the hormonal mechanisms of maintaining AP are still not well studied. The circulatory system plays a special role in creating a uniform exchange and communication environment of the body, ensures the process of information signal exchange, creates communication channels by synthesizing and transporting intercellular communication molecules (cytokines and autocooids – growth). factors, leukotrienes, prostaglandins) and redistribution of energy information flows (Abdirov Ch.A., Agadjanyan N. A., Severin A. E., 1993), (Abdurahmonova F. M., Abdurahmonov F. M., 2002).

Adaptive reactions give the organism the ability to adequately respond to changes in its internal and environmental conditions.

Among them, there are compensatory-adaptive reactions, the mechanisms of which are activated in cases where the violation of a certain structure or function of the body ensures its preservation due to the strengthening of other structural and functional formations of the body (Abdirov Ch.A., Agadjanyan N.A., Severin A. E., 1993).

The blood system, which performs various functions in the body, quickly responds to any deviations from the norm of homeostasis indicators and thus activates the body's adaptive-compensatory reaction

mechanisms (Volozhin A. I., Subbotin Yu.K., 1998).

Women between the ages of 20 and 45 living in different regions of the Republic of Karakalpakstan (Nukus, Amudarya, Karauzyak districts) participated as research objects. A total of 98 women of childbearing age were examined. The women served were divided into 3 age groups: Group 1–20–29 years old (n=51), Group 2–30–39 years old (n=30) and Group 3–40–45 years old (n=36). Also, age groups were related to the place of residence of the examined women (Table 1).

Table 1. *The number of women of reproductive age living in the Republic of Karakalpakstan who participated in the survey*

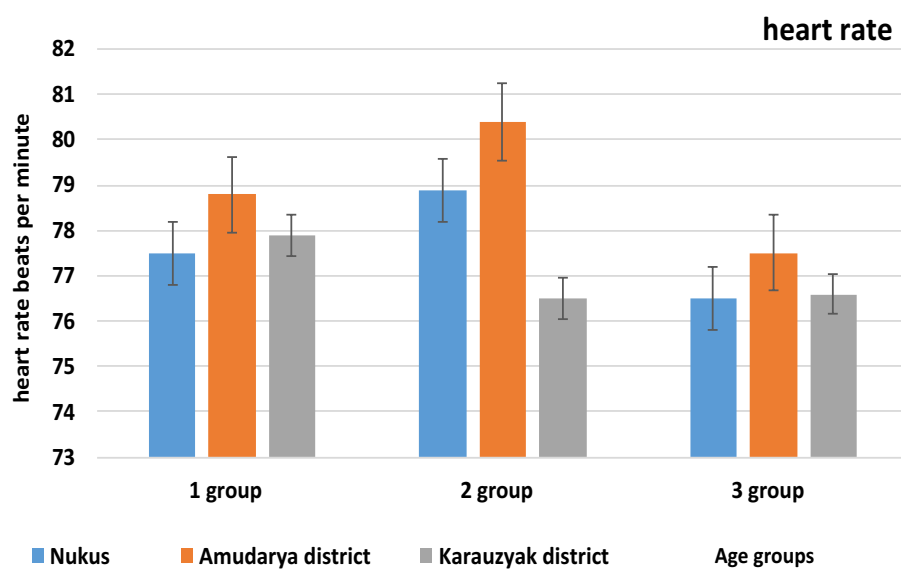
Young groups	Nukus district	Amudarya district	Amudarya district
20–29 (n young = 51)	15	18	18
30–39 young (n = 47)	16	15	16
Contingent of 40–45–year-old reproductive age women living in the Republic of Karakalpakstan who took part in the survey (n = 53)	20	18	15
Total: 151	51	51	49

At present, the state of the environment and living conditions have been proven to be the main factor in the formation of medical pathology with an undoubted leadership over all other factors. Studying the characteristics of the geographical distribution of diseases is

the first step in the search for the connection between pathology and ecology (Abdurahmonova F. M., Abdurahmonov F. M., 2002).

Specific indicators of peripheral blood circulation in women in three compared groups are shown in the (figure. 1–3).

Figure 1. *Status of heart rate parameters in examined women (n=98)*



Blood circulation Reproductive health is one of the main indicators of the state of

public health and is an important criterion of public health and the changes taking place

in it. The reproductive system of the body is particularly sensitive to the external effects of any, even low-intensity, harmful environmental factors, including subthreshold factors, and hypothalamo-pituitary regulation is particularly sensitive to the effects of radiation (Baevskiy R.M., 2014).

The circulatory system is an extensive network of organs and vessels responsi-

ble for transporting blood, nutrients, hormones, oxygen, and other gases in and out of cells. Without a circulatory system, the body cannot resist disease or maintain a stable internal environment (Abdirrov Ch.A., Agadjanyan N.A., Severin A.E., 1993), (Abdurahmonova F.M., Abdurahmonov F.M., 2002).

Figure 2. Status of blood pressure parameters in examined women (n=98)

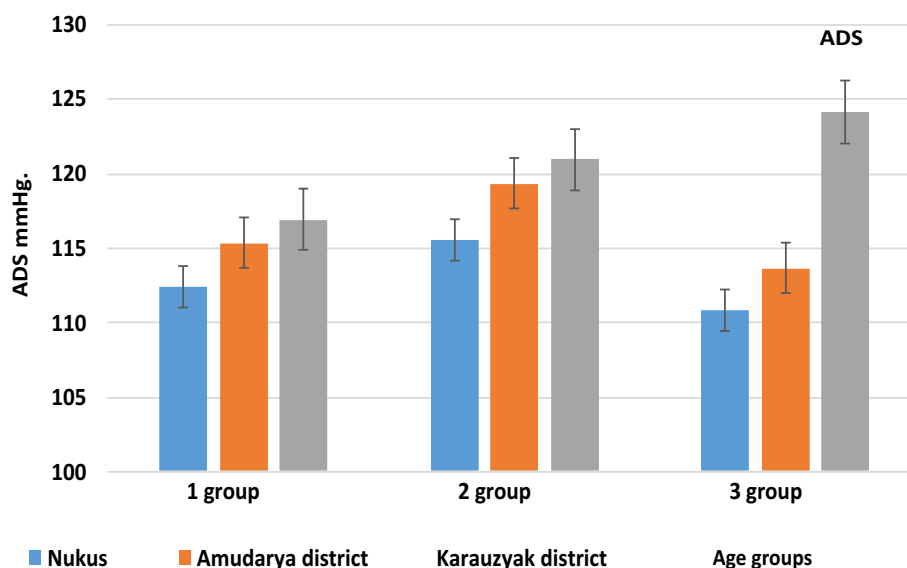
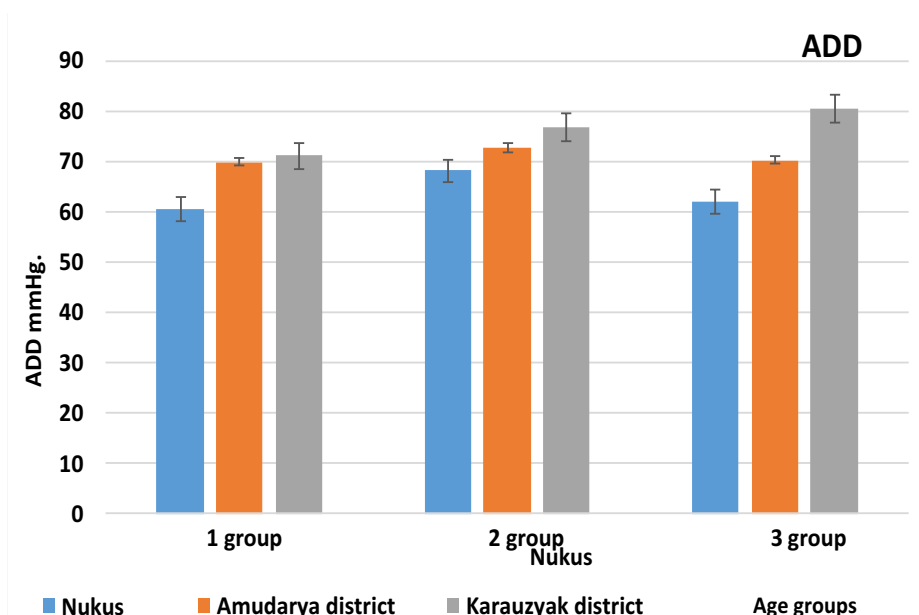


Figure 3. Status of blood pressure parameters in examined women (n=98)



It turned out that the blood pressure and heart rate of young women of the 1st group (20–29 years old) living in all three regions of the Republic of Karakalpakstan are close to each other and do not differ much from each

other. Individual changes primarily concern blood pressure, which is explained by the appearance of people with arterial hypertension and vegetative-vascular dystonia. Later, a gradual increase in blood pressure began in

all groups, this anomaly was less noticeable in women, as a control group.

Blood pressure reached 124 ± 4.2 mmHg in the control group and the older group (40–45 years old) in Karauzyak district. or exceeded, and in nulliparous women ADP was 116.8 ± 2.0 mmHg. In the same group, diastolic pressure increased significantly. At this age stage, a large number of systolic and diastolic pressures were in the control group. This is another argument in favor of the importance of the social factor that increased the greatest tension in the circulatory system.

In the second age group (30–39 years old), we again observe a stable state of the chronotropic function, which turned out to be stable in other groups. The transition from the third to the fourth age group is accompanied by a statistically significant increase in systolic and diastolic pressure in women in the prosperous region. It is evident that this is the stage in which the tension and disturbance of the adaptability of the young blood circulation occurs.

The oldest age group (40–45 years) was characterized by the most significant changes

in systolic and diastolic pressure. The most characteristic and at the same time multi-directional values of ADS and ADD were in women from Karauzyak region.

Thus, the most significant facts of hemodynamic parameters change are the shift of systolic and diastolic blood pressure, which reached the greatest values in the oldest age group. Hypertensive reactions prevailed in all groups, but were more pronounced in women living in Amudarya and Karauzyak regions of the Republic of Karakalpakstan.

The condition of blood circulation indicators in the examined healthy women and women with reproductive dysfunction is similar in terms of the number of functional disorders in the form of arterial hypertension and vegetative-vascular dystonia, which is a possible explanation of this social factor. Reveals the secret adaptive properties of hemodynamics. Severity of negative changes in parameters of nonspecific and antihypoxic protection, dysfunction of the reproductive field and circulatory system increases with age and depends on the place of residence.

References

- Baevskiy R. M. Prognostic conditions on the verge of normality and pathology.– M.: Book on demand, 2014.– 295 p.
- Abdirov Ch.A., Agadjanyan N.A., Severin A.E. Ecology and human health.– Nukus.– Karakalpakstan, 1993.– P. 43–45.
- Abdurahmonova F. M., Abdurahmonov F. M. Ecology and reproductive health of girls // Ros. managed by an obstetrician-gynecologist. 2002.– T. 2.– No. 3.– P. 42–44.
- Abdirov Ch.A., Agadjanyan N.A., Severin A.E. Ecology and human health.– Nukus.– Karakalpakstan, 1993.– P. 43–45.
- Volozhin A. I., Subbotin Yu. K. Illness and health: two sides of adaptation.– M.: Medicine, 1998.– 480 p.
- Ilyinsky I. I., Iskandarova Sh. T. Main directions of monitoring of local action plans on environmental hygiene and public health // Scientific and practical work materials. conference “Current problems of hygiene, sanitation and ecology”.– Tashkent, 2004.– P. 23–24 p.
- Kapilevich L. V., Krivoshchekov S. G. Violation of the functional state of the body of shift workers in the North and its correction // Human physiology. 2016; 42(2): 83–91.
- Tel L. Z. Valeology: the study of health, disease and recovery. In 3 volumes – M.: “AST Publishing House” LLC; “Astrel”, 2001.– T. 2.– 480 p.

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