

Possibilities of acupuncture correction of arterial hypertension based on the study data on the energy state of the meridians according to the Nakatani method

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Today, hypertension is the most important medical and social problem due to its high prevalence and high risk of mortality from its complications in the form of heart attacks and strokes. According to the WHO, 30% of the adult population and 65% of people over the age of 60 suffer from hypertension. Modern pharmacology, offering a lot of therapeutic schemes for the correction of arterial hypertension, is far from always effective.

Traditional Chinese medicine possesses centuries-old experience in the treatment of hypertension. Methods and devices for electroacupuncture diagnostics according to Nakatani developed in the 80s of the last century make it possible to identify the causes of the development of arterial hypertension (according to the canons of traditional Chinese medicine) by assessing the state of acupuncture meridians, obtained by measuring electrical conductivity at representative points.

Based on the Nakatani method, any changes in the internal organs are reflected in the electrical characteristics of the skin. The parameters of electropuncture measurements at certain points can be sensitive indicators of these changes, signaling pathology. This phenomenon is explained by the viscerocutaneous sympathetic reflex (it is known that the electrical conductivity of the skin depends primarily on the state of the sympathetic part of the autonomic nervous system). The Nakatani method is based on the registration of functional chains of excitation of the sympathetic nervous system caused by diseases of the internal organs. The data obtained allow a differentiated approach to acupuncture therapy, based on research results, to assess the dynamics of treatment and, if necessary, apply correction of reflexotherapy schemes.

The aim of the study was to study the energy state of classical meridians according to the Nakatani method in patients suffering from hypertension at the stages of the treatment and diagnostic process for the individualization of approaches to reflexotherapy.

Materials and methods

The material for the study was 25 patients (main group) suffering from arterial hypertension, aged 50 to 65 years (mean age 60 ± 5 years), among whom women predominated (75%). As a control group, 20 volunteer students of the Amur State Medical Academy (mean age 19 ± 1 years), who did not suffer from increased blood pressure, were examined, among whom women also predominated (65%).

Diagnostics according to Nakatani was carried out on the medical and diagnostic complex ARM "PERESVET" by measuring the electrical conductivity at 24 representative points located symmetrically in the area of the wrist and ankle joints. The values obtained as a result of the survey are applied to the R-card proposed by I. Nakatani (Nakatani diagram). The program calculates the corridor of the patient's individual norm. Channels that are in hyperfunction (or "Fullness") are located above the normal corridor. The meridians in deficiency (or in the "Void" state) are below the normal corridor. The result of the diagnostic study is to determine the functional state of the meridians. In this case, not the absolute values of the transcutaneous electrical conductivity of the representative points are used, but their location relative to the individual norm corridor on the R-map.

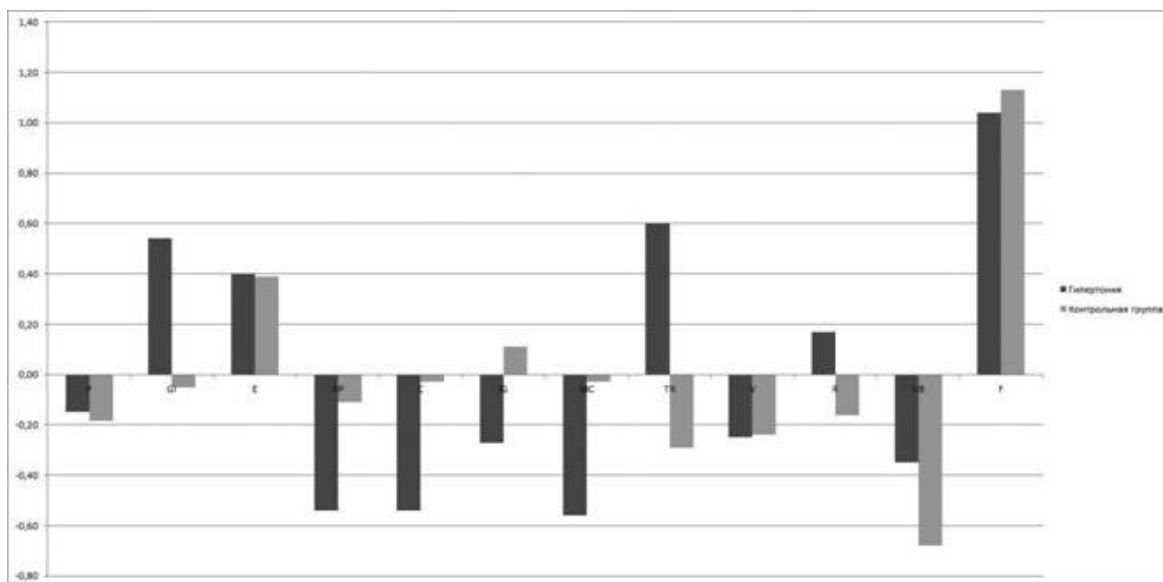
Research results

In the group of patients with arterial hypertension, a more pronounced hyperfunction of the large intestine meridians ($p < 0.05$), triple heater ($p < 0.005$) and, to a lesser extent, the renal meridian ($p > 0.05$) was noted. Excessive function in the canals of the stomach and liver was noted in both groups ($p > 0.05$). In contrast to the control group, significant hypofunction of the canals of the heart ($p < 0.05$), pericardium ($p < 0.05$), spleen ($p > 0.05$) and small intestine ($p > 0.05$) was recorded in the main group of patients. Less pronounced decrease in the function of the meridians of the lungs, bladder and gallbladder was noted in both groups. A specific feature of the control group was the hypofunction of the kidney and san jiao canals (Table 1, Fig. 1).

Table 1

Energy state of meridians according to the Nakatani method

Meridian	Energy state of the meridian		p
	Main group, n = 25	Control group, n = 20	
lungs	- 0.146	- 0.184	0.873
colon	0.543	- 0.053	0.006
stomach	0.396	0.395	0.996
spleen	- 0.542	- 0.105	0.073
heart	- 0.542	- 0.026	0.049
small intestine	- 0.271	0.105	0.064
pericardium	- 0.563	- 0.026	0.014
san jiao	0.604	- 0.289	0.001
bladder	- 0.250	- 0.237	0.958
kidneys	0.167	- 0.158	0.136
gall bladder	- 0.354	- 0.684	0.261
liver	1,042	1.132	0.713



Rice. 1. Energy state of meridians according to Nakatani's method

Discussions and conclusions

Traditional Chinese medicine considers essential hypertension as an imbalance of yin and yang in two storage organs - the liver and kidneys, as well as stagnation in the body of moisture and mucus in

the result of Chi lesion of the spleen with a further decrease in Yang. From the point of view of Chinese medicine, the liver is a storage organ, which for the normal performance of its functions must be provided and saturated with the yin of the kidneys. If the yin of the kidneys is insufficient, the yang of the liver is overstressed. Due to the reverse effect of the excessively strengthened Yang of the liver, the Yin of the kidneys can be further disturbed for the second time. If the yang of the spleen does not receive nutrition from the kidneys, there is a violation of the spleen's control over moisture, the blockage of mucus clogs the Lo-channels, and the flow of energy along the meridians is disrupted. Such mutual influences lead to the appearance of the Fire of the liver or to an extreme increase in the hepatic yang, which causes the formation of the hepatic Wind inside the body. Chi and Blood go up in the opposite direction. With a strong Fire of the liver and Emptiness of the kidneys, Heat engulfs the meridian of the heart; in the disorderly water economy, Yang can no longer be retained in Yin. Emptiness of Yin with fullness of Yang leads to stagnation of Heat and Chi, the Shen of the heart becomes sluggish.

In the examined groups, there is a pronounced hyperfunction of the liver meridian, which in both cases is due to the Fire of the liver. In the control group, liver hyperfunction may have been a consequence of the tension of adaptive, mental and emotional reserves, lacking an organic basis (the students had a period of pronounced psychoemotional tension before the start of the session). In the main group, there is a slight hyperfunction in the kidney meridian, which can be explained by the depletion of the Yin principle, dried out by the heat of the liver and the resulting relative excess of the Yang principle within the meridian. This leads to the further development of the Yin and Yang emptiness syndrome described by traditional Chinese medicine. In the control group, in contrast to the main one, the kidney meridian is in a state of insignificant "emptiness".

In the main group of patients, there is also a significant hyperfunction of the meridians of the stomach and large intestine. The syndrome of moisture and heat in the stomach occurs under the influence of a pathogenic principle associated with moisture and is in the body in a blocked state, forming heat. With stagnation of humidity and heat in the stomach, the excretory function of the liver is disturbed, an increase in the Yang of the liver. The function of lowering the stomach fails and the cloudy, thick Chi moves upward. The heat that penetrates the intestines and stomach damages the spleen, which causes its hypofunction and, as a result, the accumulation of excess moisture. Further hypofunction of the spleen leads to a delay in pathogenic moisture with heat in the large intestine, blocks the passage of Chi, and disrupts the function of transport and transformation in the large intestine.

In patients with essential hypertension, there is a pronounced hyperfunction of the meridian of three heaters against the background of hypofunction of the pericardial canal, which is explained by the presence of jiaoyang heat in san, which is not typical for the control group. Meridians with the same name (lungs-spleen, large intestine-stomach, small intestine-bladder), according to the "top-bottom" rule (yin / yin or yang / yang), are in the same functional state (in excess or deficiency), except for the meridians of the liver-pericardium, the energy state of which is opposite. In the control group, such patterns were not revealed. In the main group, a deficit in the meridians of the heart and pericardium was recorded, which does not fit into the ideas of Chinese medicine about the pathogenesis of hypertension caused by the Fire of the heart.

Thus, it is obvious that there are vivid patterns of hypertension, which significantly overlap with the concepts of hypertension in Chinese medicine. However, meridian dysfunctions, which are not entirely regular from the point of view of classical concepts, were also found, which necessitates further research and,

perhaps a revision of traditional ideas about pathology.

The results obtained make it possible to formulate the basic principles of acupuncture correction of hypertension: toning the meridians of the pericardium, heart, spleen, urinary and gall bladder and inhibition of the liver channels, triple heater, stomach and large intestine.

Analyzing the data obtained in the control group, we can conclude that the surveyed have a high risk of becoming potential hypertensive patients in the event of depletion of adaptive reserves and further imbalance of the meridian system. The fact of gradual and long-term pathogenesis of the development of hypertension is obvious, according to the basic concepts of Chinese medicine.

Thus, the study revealed a fairly high diagnostic efficiency of the Nakatani method of electropunctural diagnostics and the computer complex ARM "PERESVET" developed on its basis for hypertension, which allows an objective assessment of pathogenetic mechanisms based on the analysis of the correlation of electrical conductivity indicators at representative points of the meridians in patients and in the control group. This study provides a basis for further development and practical application of the Nakatani method of multichannel electropunctural diagnostics in order to develop methods for screening diagnostics of hypertension and the use of rational schemes of acupuncture therapy for this disease, based on research and concepts of traditional Chinese medicine.

Literature

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Molchanova, E.E. Possibilities of acupuncture correction of arterial hypertension based on the study of data on the energy state of the meridians using the Nakatani method / E.E. Molchanova, I.A. Kravets // XXIII International Conference "Theoretical and Clinical Aspects of the Application of Bioresonance and Multiresonance Therapy". - M.: IMEDIS, 2017. -- S. 349-354.

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