Diagnostic capabilities of the Nakatani method V.V. Makashovaone, A.A. Fadeev2, HER. Metaxa2, HER. Meysers3 (oneCentral Research Institute of Epidemiology, 2NMC "Peresvet", 3MIREA department BME, Moscow, Russia)

The problem of viral hepatitis is relevant at the present time. Due to the high incidence rate, the diagnosis of parenteral hepatitis B and C is of particular importance. The difficulty of detecting them lies in the fact that they are mostly latent, characterized by nonspecific symptoms from the hepatobiliary system and various extrahepatic manifestations. The appearance of obvious symptoms, as a rule, speaks of an advanced disease associated with the chronicity of the process leading to cirrhosis or primary liver cancer. The diagnosis is complicated by a long incubation period, the presence of false-positive results, periodic fluctuations in liver function indicators, the need to regularly monitor its condition.

In traditional medicine, there are a number of screening technologies that allow assessing the functional state of many body systems by measuring the electrical conductivity of the skin at biologically active points or zones. Among them, the Nakatani method is one of the fastest and simplest, which allows you to assess the patient's condition in a few minutes [1, 3].

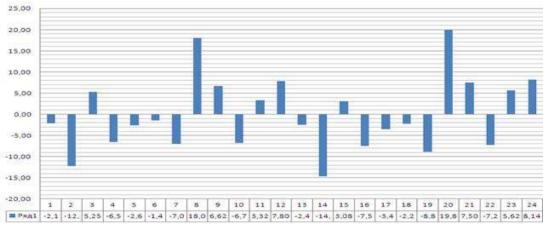
The aim of the work was to study the diagnostic capabilities of the Nakatani method in screening patients with viral hepatitis and patients with other pathologies.

Materials and research methods

The study involved 212 patients of both sexes from 19 to 56 years old with an established clinical and laboratory diagnosis of viral hepatitis (VH). For the comparison group, data from 822 patients of the same age group were used without a diagnosis of viral hepatitis. Viral hepatitis B (HBV) was diagnosed in 131 patients, and viral hepatitis C (HCV) - in 63 patients. Electropuncture diagnostics according to Nakatani was carried out using the medical diagnostic complex ARM "PERESVET" (registration certificate FSR 2009/05421). The diagnostic conditions met the requirements of the method [4].

Research results and their discussion

Measurements of electropunctural parameters were carried out at 24 points according to the Nakatani method. For each patient, a Ryodoraku map was constructed using the standard method using the approximating formula proposed by V.M. Kim [2]. Then the average value of the electrical conductivity for the visit was calculated, and the deviation of the obtained value of the electrical conductivity for each meridian from the calculated average value was calculated. The resulting deviations were averaged over all visits. The average deviation value for patients with a confirmed HCV diagnosis is shown in the presented graph (Fig. 1), where the ordinate represents the mean deviation of the measured conductivity value on the meridian from the mean value for all meridians, and the abscissa represents the meridian numbers presented in tab. one.



Rice. one.Deviations of electrical conductivity values from the mean in HCV disease

Table 1

Left	On right	Organs				
one	13	Lungs				
2	fourteen	Pericardium (vessels)				
3	fifteen	A heart				
4	sixteen	Small intestine				
five	17	Triple warmer (endocrine system) Large				
6	18	intestine				
7	nineteen	Spleen-Pancreas Liver				
eight	twenty					
nine	21	Kidney				
10	22	Bladder				
eleven	23	Gall bladder				
12	24	Stomach				

Correspondence of measurement points to meridians

Taking into account the value of the averaged "norm" corridor, the most pronounced changes are observed on the meridians of the liver and pericardium (see Table 2).

table 2

Meridians with the most pronounced deviations in patients with GV

hepatitis type	meridian	dot	side	deviation	condition
WITH	linear	eight	left	+ 18	hyperfunction
	liver	twenty	on right	+ 20	
	pericardium	2	left	- 12	hypofunction
		fourteen	on right	- fifteen	
	1	eight	left	+ 15	hyperfunction
TNI	liver	twenty	on right	+ 14	
IN		2	left	- 10	hypofunction
	pericardium	fourteen	on right	- eleven	

Average value of electrical conductivity over for all visits in HCV patients was 60 conventional units. The electro-acupuncture profile of HCV has a combination of the following pronounced disorders along the meridians: hyperfunction of the liver meridian and hypofunction of the pericardial meridian.

In the study of a group of patients with viral hepatitis B (HBV), a pattern of violations along the meridians similar to that of HCV was obtained (Fig. 2). The average value of electrical conductivity in HBV patients was 54 conventional units, which is lower than the corresponding parameter in HCV patients. In fig. 2, the ordinate represents the mean value of the deviation of the measured conductivity value on the meridian from the mean value over all meridians, and the abscissa represents the meridian numbers presented in Table. one.



Rice. 2.Deviations of electrical conductivity values from the average in HBV disease.

In patients with HBV viral hepatitis, as in HCV, the most characteristic changes are observed in the meridians of the liver and pericardium (Table 2). However, the absolute values of the deviations of electrical conductivity on these meridians are more pronounced in the group of HCV patients.

The data obtained for the deviations of electrical conductivity in the group of patients with the established clinical and laboratory methods for the diagnosis of viral hepatitis significantly (Student's t-test at a significance level of p < 0.01) differed from the deviations in the electrical conductivity of the comparison group, whose patients did not have an established diagnosis of GV.

When studying the differences in electrical conductivity deviations in groups of patients with established diagnoses of viral hepatitis C and B, the data presented in Fig. 3. In the figure, the ordinate represents the difference in the mean deviation of the measured conductivity value on the meridian between the groups with HCV and HBV, and the abscissa shows the numbers of the meridians presented in Table. one.



Rice. 3.The difference between the mean deviations of values for HCV and HBV disease.

As can be seen from Fig. 3 there are significant differences between the groups. The study by Student's t-criterion showed a statistically significant difference between the two groups at a significance level of p <0.05. The most indicative are the differences in electrical conductivity on the spleen-pancreas and bladder meridians. In HCV, there is a tendency to hypofunction along the spleen-pancreas and bladder meridians, and in HBV, there is a reverse tendency to hyperactivity along these meridians. The use of the term trend implies that there are deviations from the mean value of electrical conductivity that do not always go beyond the boundaries of the calculated norm corridor, however, the multidirectionality of these values is beyond doubt.

Conclusion

The data obtained indicate the fundamental possibility of using the Nakatani method to identify patients with viral hepatitis. In addition, the study revealed differences in indicators in the HCV and HBV groups.

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