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Adaptive Reactivity of the Body in the Treatment of Acute Pancreatitis

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Annotation. Acute pancreatitis is an acute inflammation of the pancreas, which, acting on the integrative systems of the human body, causes the strongest changes in them. The aim of the work is to determine the vegetative reactivity in acute pancreatitis. The study was conducted on 30 practically healthy people, as well as on 30 patients with acute pancreatitis. It was revealed that in the body of healthy people, in the reactivity of the autonomic nervous system, there is a monotonous tension between the sympathetic and parasympathetic nervous system, against the background of normal adaptive reactivity. In patients with acute pancreatitis, there is tension between the sympathetic and parasympathetic nervous systems in the reactivity of the autonomic nervous system, activation of the sympathoadrenal system, centralization of the regulatory system against the background of a hypoadaptive state.

Key words: Acute pancreatitis, reactivity of the autonomic nervous system, heart rate variability.

Pancreatitis is an aseptic inflammation of the pancreas, which is based on the process of auto-enzymatic necrobiosis, endogenous intoxication, as well as a sharp change in the reactivity of the body against the background of extreme factors, against the background of an imbalance between ergotropic, trophotropic and kinetic activity of the autonomic nervous and endocrine system, leading to the development of endogenous intoxication [19; 13; 8; 20; 21; 22]. The products of endogenous intoxication, lack of energy in the body, contribute to reducing the resistance of the body systems, that is, it affects the circumference of the pancreas and causes various pathological changes in the pancreas itself.

Acute pancreatitis is one of the most common pathologies among surgical diseases. It accounts for 5-10% of abdominal pathology. The frequency of pancreatic necrosis among common forms of pancreatitis is 15-30%. Over the past 20 years, among residents per 100,000 people, the incidence of acute pancreatitis has increased by 10-30% [2; 6; 11; 10; 18; 23].

To date, despite conservative and surgical treatment with modern methods, the total mortality is 7-15%, in destructive cases - 40-70%, and in pancreatic shock - 85-90%.

One of the main factors determining this condition is the patient's age, the presence of organ failure syndrome, late diagnosis, and misdiagnosis, incorrect therapeutic and surgical treatment. [12; 14; 5; 4; 3;7; 17; 24]. Such processes are based on the specificity of the course of this disease; therefore, early diagnosis of the causes, mechanisms of disease development, as well as the development and selection of adequate treatment for acute pancreatitis, is an urgent problem.

The purpose of the work. Determination of the reactivity of the patient's body in acute pancreatitis.

The object and materials of the study. In the course of the work, general reactivity was studied in 30

normal physiologically healthy people, as well as in 30 patients with acute pancreatitis during 2021-2022, in 1 and 2 surgical emergency departments in the city of Samarkand.

Research methods. General clinical laboratory methods, instrumental methods (CT, ultrasound, radiography), methods of statistical analysis.

Analysis of the received data and discussions. In turn, it should be said that in physiologically normal people, with mixed vegetative reactivity, blood pressure, as well as vascular filling and blood distribution throughout the body have normal indicators.

When studying autonomic reactivity using a cardiointervalograph in healthy people, according to mathematical analysis, the level of activity of the sympathetic nervous system showed 42.6±1.9. The secondary indicator is mathematical: the activity of the central regulation of the heart rate IN according to variational pulsometry was 123.7± 15.4. In the study of spectral analysis, the absolute activity of Total regulatory systems was 703.4±7.4; The metabolic-humoral activity of VLF was -231.2±31.6, the relationship between the tone of the sympathetic and parasympathetic nervous system LF/HF was 1.53±0.3.

At the same time, the maximum blood pressure was 122.2±16.5 mmHg, the minimum blood pressure was 79.6 ±7.4 mmHg, and the pulse pressure was 42.6 ±3.4 mmHg.

In the study of autonomic reactivity using cardiointervalography of patients with acute pancreatitis, according to mathematical analysis, the level of activity of the sympathetic nervous system AMo - showed 64.5 ± 1.8%. The secondary mathematical indicator IN, the activity of the central regulation of the heart rate according to variational pulsometry was IN 257.6±30.4 (%/sec ^2), that is, an increase in the tone of the sympathetic nervous system was revealed (P<0.001). In the study of spectral analysis, the absolute activity of Total regulatory systems was 526.2±5.4(P<0.001), the metabolic-humoral activity of the VLF was 351.3 ±46.5 (ms^2) (P<0.001); at the same time, the relationship between the tone of the sympathetic and parasympathetic nervous system of the LF/The HF was LF /HF 3.9 ± 1.2 (P<0.001), which is more pronounced than in healthy people. The maximum blood pressure was 131.3±0.9 mmHg, the minimum blood pressure was 86.9±0.8 (P<0.001), the pulse pressure was 44.4±0.25 mmHg (P < 0.001).

Thus, when studying the indicators of healthy people, as well as in patients with acute pancreatitis, general reactivity, which includes data obtained on the basis of mathematical analysis in heart rate variability, variational heart rate monitoring, spectral analysis according to Mikhailov V.M. (2000) R Baevsky.M., (1999) Fleishman A.N., (1999), Haspek and N.B., (1996), In Saveliev. It can be said that in the body of patients with acute pancreatitis, there is a connection of a compensatory-adaptive reaction, against the background of the ergotropic function of the sympathoadrenal system of the body, with the centralization of regulation with the centralization of blood circulation, an increase in blood pressure, against the background of a hypoadaptive state.

Conclusion.

1. In physiologically healthy people, in the body of controlled people, with vegetative reactivity, there is a monotonous tension between the sympathetic nervous system and the parasympathetic nervous system. Adaptive reactivity is the norm.
2. In patients with acute pancreatitis, there is tension between the sympathetic nervous system and the parasympathetic nervous system in the reactivity of the autonomic nervous system, activation of the sympathoadrenal system, centralization of the regulatory system against the background of a hypoadaptive state.

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