## МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



## МАТЕРІАЛИ

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## Ivashchuk S.I. IMMUNOLOGICAL REACTIVITY OF THE PATIENTS WITH BILIARY GENESIS ACUTE PANCREATITIS

Family Medicine Department Bukovinian State Medical University

**Introduction.** Acute pancreatitis continues to occupy the second place in the structure of acute abdominal pathology. Immunological reactivity of the patient's body has a significant impact on the severity of pancreatitis. The study of the determining influence of the organism state on the course of acute pancreatitis and the results of treatment, causes necessity of the study and search of new pathophysiological mechanisms of immunological reactivity of patients with acute pancreatitis.

The aim of the study was to study some mechanisms of the biliary genesis acute pancreatitis formation.

Material and methods. 72 patients with the edematous form of acute pancreatitis of biliary genesis were examined. The effectiveness of the immunological reactivity of the patients organism was assessed on the basis of integrational immuno-hematological parameters: indexes of immunological and nonspecific reactivity of organism, allergization, lymphocyte/granulocyte index, leukocyte shifting, general index of intoxication type, neutrophil/lymphocyte coefficient. The statistical analysis was performed using applications MYSTAT 12 (Systat Software Inc., USA). The reliability of data for independent samples was calculated according to t-test Student. The analysis of qualitative features was performed according to the  $\chi^2$  criterion. The difference was considered significant at p<0.05.

**Results.** In patients with acute pancreatitis of biliary genesis, the immunological reactivity index increases by 56.86% (p<0.05), and the level of non-specific anti-infective protection decreases by 47.72% (p<0.001). The rate of hypersensitivity (allergization) of the body is also reduced by 79.55% (p<0.001), which indicates a limitation of the effectiveness of the immune response formation. Inhibition of non-specific anti-infective protection depends on the intoxication caused by the infectious process, as testify the increase of the leukocyte shift index 2.41 times and decrease of indixes: lymphocyte/granulocyte (2.02 times), the general intoxication (2.4 times), the ratio of the absolute number of leukocytes and ESR (5.76 times).

The increase of the leukocyte shift index 2.41 times confirms the activation of the inflammatory process and the corresponding disturbance (stimulation) of the immunological reactivity of patients with acute pancreatitis of biliary genesis, and the decrease of lymphocyte/granulocyte index, total intoxication index and leukocyte ratio and ESR indicates that the inflammatory process is accompanied by intoxication, which is caused mainly by the infectious process and, to a small extent, by the destruction of its own cells and their components.

The decrease of the lymphocytic index, which reflects the relationship between the humoral and cellular components of the immune system, 2.21 times, indicates the prevalence of cellular immunity. And the increase of the ratio of lymphocytes and monocytes by 48.5% indicates that the processes of the afferent link of the immune response slightly exceed the effector link, and indicates the beginning of the formation of the immune response (in some patients this is manifested only by the initial process, in others - the beginning of the formation of humoral and cell specific response), and the decrease of the ratio of lymphocytes and eosinophils, which determines the relation of immediate and delayed hypersensitivity processes, point out on the delayed type, which is manifested by the decrease of immune system function.

**Conclusions**. Thus, acute pancreatitis of biliary genesis is accompanied by intoxication, which is mainly due to an infectious process against the background of the prevalence of the delayed type of immune response.