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THE INFLUENCE OF ACUTE PERIPANCREATIC FLUID COLLECTION ON THE INTRA-ABDOMINAL PRESSURE IN PATIENTS WITH A COMPLICATED COURSE OF ACUTE PANCREATITIS

Introduction. Acute pancreatitis is a systemic disease with a high risk of complications and death. The frequency of development of intra-abdominal hypertension in patients of this category is 60-70% and leads to an increase in the mortality rate up to 62% [1]. Acute peripancreatic fluid collection, occurring in 65.2-88.9% of patients with moderate and severe acute pancreatitis in the early period of the disease, is one of the causes of increased intra-abdominal pressure [2]. At the current stage, in the treatment of acute peripancreatic fluid collection, preference is given to conservative methods, which is associated with data according to which the use of operative treatment in the early stages of the course of acute pancreatitis leads to an increase in the number of complications, deaths and the length of stay of patients in the hospital [3]. However, there are studies proving the safety and effectiveness of paracentesis and drainage of the abdominal cavity in this category of patients [4].

The aim of our study: to evaluate the effect of acute peripancreatic fluid collection on intra-abdominal pressure and the effectiveness of paracentesis with drainage of the abdominal cavity as a method of treatment of intra-abdominal hypertension in patients with complicated course of acute pancreatitis in the early period of the disease.

Materials and methods. There were 60 patients with a complicated course of acute pancreatitis included in the study, who were divided into two groups depending on the features of the selected treatment tactics: the main group (paracentesis, drainage of the abdominal cavity was additionally performed) - 30 patients, the comparison group (conservative therapy was applied) - 30 patients. The criteria for inclusion in the study were: patients of both sexes over the age of 25 who were admitted to a hospital by emergency care with a diagnosis of acute pancreatitis lasting up to 7 days from the onset of the disease and the presence of exudate in the abdominal cavity according to ultrasound examination, the course of the disease - moderate and severe. Exclusion criteria were chronic somatic diseases in the decompensation phase, the patient's refusal to participate in the study. Patients of the two groups did not significantly differ in age, gender, etiology, body mass index, and prognostic indicators (sum of points on the APACHE II scale) of the severity of the course of the disease at the time of hospitalization ($p>0.05$). Intra-abdominal pressure indicators were compared in the studied groups and a comparative analysis of the dependence of its changes on the amount of exudate removed from the abdominal cavity was performed.

Results. The development of intra-abdominal hypertension was observed in 19 (63.3%) patients of the main group and in 18 (60%) patients of the comparison group. When using paracentesis and drainage of the abdominal cavity in the early period in patients with a complicated course of acute pancreatitis, a significant difference was obtained between the intra-

abdominal pressure indicators in the studied groups after one day (8.7 ± 1.5 vs. 14.7 ± 3.3 mm Hg ($p < 0.0001$)) and after 7 days (10.5 ± 1.3 vs. 12.7 ± 2.5 mm Hg ($p = 0.0001$)). At the same time, in the patients of the main group, a decrease in intra-abdominal pressure was observed on the first day after paracentesis, followed by an increase in it after three days and stabilization after 6 days, which, in our opinion, can be explained by the influence of other factors affecting intra-abdominal pressure in patients with acute pancreatitis (pain syndrome, intestinal paresis, mobility of the abdominal wall, visceral edema, fluid overload, etc.) and the development of compensatory mechanisms aimed at stabilizing intra-abdominal pressure. We also found an average negative correlation between the amount of exudate that was removed from the abdominal cavity and changes in intra-abdominal pressure in patients of the main group with a Pearson coefficient $r = -0.4418$, which generally confirms the opinion about the importance of various factors in the occurrence of intra-abdominal hypertension in patients with acute pancreatitis.

Conclusions. One of the factors leading to an increase in intra-abdominal pressure in patients with a complicated course of acute pancreatitis is the accumulation of exudate in the abdominal cavity. An average negative correlation was found between the amount of exudate removed from the abdominal cavity and intra-abdominal pressure changes with Pearson's coefficient $r = -0.4418$ in patients with complicated course of acute pancreatitis. When using paracentesis and drainage of the abdominal cavity in the early period in patients with a complicated course of acute pancreatitis, a significant difference was obtained between the intra-abdominal pressure indicators in the studied groups after one day (8.7 ± 1.5 vs. 14.7 ± 3.3 mm Hg ($p < 0.0001$)) and after 7 days (10.5 ± 1.3 vs. 12.7 ± 2.5 mm Hg ($p = 0.0001$)).

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