

THE CURRENT STATE OF THE PROBLEM OF SEVERE ACUTE PANCREATITIS

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Abstract

Despite the advances in intensive care and surgical treatment of acute pancreatitis, no significant progress has been achieved in the treatment of its severe form. Conservative treatment of severe pancreatitis results in almost 100% mortality, while surgical treatment reduces it to 30%. Severe pancreatitis includes patients with multiple organ failure and/or infected pancreatic necrosis. The recommendations of the International Association of Pancreatologists note that non-infected pancreatic necrosis accompanied by multiple organ failure in some cases should be surgically treated, while infected pancreatic necrosis is an indication for surgical treatment. In this case, both minimally invasive and various types of "open" surgical interventions can be used. Unfortunately, such guidelines are not always accepted and attempts are made to search for "special" forms of pancreatitis and hopes are placed on conservative, detoxifying and various types of minimally invasive interventions, which leads to late, not always adequate, dangerous manipulations and high mortality. In sterile necrosis, a conservative approach is generally accepted as long as there is a positive response to the treatment in the intensive care unit. Also, at this stage of acute pancreatitis, the available treatment experience allows us to assert the advantage of minimally invasive methods over traditional ones. Thus, there is no doubt about the effectiveness of removing toxic effusion from acute fluid accumulations of the pancreas under ultrasound or CT control and drainage of the abdominal cavity using video laparoscopy.

Introduction

In cases of persistence or progression of organ failure, as well as when it is impossible to exclude or prove infection of pancreatic necrosis, surgical treatment is indicated. At the same time, such restrained surgical tactics are a subject of discussion and are often questioned. Also, in case of infected pancreatic necrosis, a number of issues remain that require resolution. Thus, in our conditions, indications for emergency operations often arise in connection with the breakthrough of liquid infected accumulations of the pancreas into the retroperitoneal space and into the abdominal cavity, which is not mentioned by foreign surgeons and which requires additional study and development of rational surgical tactics.

The main issues of surgery of infected pancreatic necrosis are determining the optimal time for performing surgery after an attack of acute pancreatitis and choosing a method of surgical intervention. The best time for intervention, according to most foreign and domestic surgeons, is recognized as 3-4 weeks after the onset of acute pancreatitis and its local complications against the background of modern conservative treatment, which helps resolve multiple organ failure, delimit and organize infected pancreatic necrosis. These conditions allow using both minimally invasive and types of surgical intervention with favorable results. At the same time, it is not always possible to achieve such an ideal course of severe pancreatitis and in practice a

number of issues arise that require an urgent solution. This is, first of all, the organization of treatment of patients with severe pancreatitis, which involves early admission of the patient to the hospital, timely recognition of acute pancreatitis, rational conservative treatment leading to the reverse development of the inflammatory process of the pancreas or organization and demarcation of the focus, determining the indications for surgical treatment depending on the course of the disease and local changes, both in the pancreas itself and in the surrounding tissues. Finally, the problem is the choice of the method of surgical assistance, minimally invasive or "open", since there are no selection criteria, and the existing proposals are uncertain and, at times, not feasible in general surgical departments for so-called "primary patients", and individual proposals can be dangerous for the patient. Within the framework of these fundamental issues, many tasks need to be solved, aimed at determining the effectiveness of fine-needle puncture for detecting infection, the importance of antibacterial prophylaxis in patients with severe pancreatitis and puncture-catheterization methods in the treatment of severe pancreatitis, the importance of the prevalence of pancreatic necrosis for determining the indications and choice of the surgical method. It is also necessary to clarify a number of details of "open" surgical interventions and develop principles of postoperative care of patients after minimally invasive and "open" operations.

Objective of the study: To improve the treatment results of patients with severe acute pancreatitis.

Research objectives: 1. To determine the value of the puncture - catheterization method in the treatment of sterile and infected pancreatic necrosis and to identify the reasons for the ineffectiveness of the method in infected pancreatic necrosis. 2. To clarify the timing of surgical intervention in infected pancreatic necrosis depending on its complications and prevalence.

Results of the study: Severe acute pancreatitis (SAP) is a disease with a potentially unfavorable outcome. Among the total number of patients, SAP is 5-30% and is accompanied by a high mortality rate of 25-80%. According to the recommendations of the International Association of Pancreatologists, severe acute pancreatitis includes patients with acute pancreatitis accompanied by multiple organ failure and/or infection, and these groups of patients create the greatest problems for clinicians.

An analysis of mortality in such patients over the past 25 years shows that 57% of deceased patients die within the first two weeks of the onset of the disease. The main cause of early mortality is progressive multiple organ failure (POF), which develops against the background of systemic inflammatory response syndrome (SIRS). Over the past decade, there has been obvious progress in the effectiveness of intensive care for patients with TOP, but "early" toxic and "late" purulent-septic complications still remain the "cornerstone" of emergency pancreatology. It is the category of patients with purulent-septic complications of TOP that seems to be the most problematic in diagnostic, therapeutic and economic aspects. With infected TOP, mortality reaches 85%, with a fulminant course of the disease - 100%. Postoperative mortality with infected TOP reaches 12-30%. The reasons for such high overall and postoperative mortality rates of acute pancreatitis are diagnostic errors at the level of the

admission department and surgical hospital, underestimation of the severity of the patient's condition and, as a consequence, inadequate choice of conservative and/or surgical treatment, development of complications, late and ineffective treatment. That is why the problem of severe acute pancreatitis, especially intensive care and surgical treatment, arouses keen interest and has been the subject of discussion at international and domestic forums of hepatopancreatobiliary surgeons.

Growing urbanization, development of industry and transport, local military conflicts increase injuries to the population and damage to abdominal organs. At the same time, there is a steady trend towards an increase in injuries, an increase in the number of injuries to abdominal organs and, accordingly, the frequency of pancreatic injuries. Over the past two decades, post-traumatic pancreatitis has turned from rare casuistic observations into an object of increased attention of many surgeons, both in our country and abroad. The share of the pancreas (PG) among all cases of damage to abdominal organs ranges from 1 to 15%, and according to some data reaches 15 - 20% and does not tend to decrease. According to data, from 25 to 30% of victims with pancreatic injury may be admitted to large surgical hospitals annually. Combined injuries with injuries to other organs are more common. Isolated pancreatic injury accounts for about 30% of all cases. Over the past 20 years, advances in pharmacology, improvements in surgical techniques, and the emergence of new diagnostic and therapeutic methods have led to a significant increase in patient survival. Since the results of pancreatic surgery are improving year after year, and the indications for them are expanding and in some cases becoming the method of choice, even for those patients who have not been operated on before due to the severity of their condition. However, postoperative results are still far from perfect and a number of unresolved issues remain. There is no single point of view on either the choice of surgical method or the sequence of diagnostic measures required in the preoperative period. There is no consensus on the role and place of conservative therapy in the complex treatment of victims with pancreatic trauma.

The accumulated experience in the use of various surgical and diagnostic methods, conservative therapy, postoperative management made it possible to conduct methodological parallels and comparative analysis in the treatment of different groups of patients. Since the order of diagnostics and surgery on the damaged pancreas, along with the rational use of pharmacological agents, is the main factor influencing the postoperative course for the patient in the immediate postoperative period, new methodological approaches are needed that increase the potential for restoring organ function, reducing postoperative complications and improving patient survival. Taking into account the above, the study of pancreatic injury after trauma, as well as the study of the frequency and nature of complications seem to be very relevant and promising. TOP is a polyetiological disease characterized by the development of an acute inflammatory process in the pancreas, resulting from the autolysis of pancreatic tissue by lipolytic and activated proteolytic enzymes, manifested by dysfunction of organs and/or local complications: pancreatic necrosis with infection, false cysts, abscess. According to the literature, there are about 140 different factors leading to the development of TOP. On average, 55% of cases are associated with alcohol abuse; 35% are due to diseases of the biliary tract

(calculous and non-calculous cholecystitis, the presence of a common duct for the common bile duct and the main pancreatic duct, stones in the common bile duct, strictures and compression of the duodenal papilla, papillitis, spasms of the sphincter of Oddi, metaplasia of the epithelium of the duodenal papilla, duodenitis, duodenostasis, diverticula near the duodenal papilla); intake of medications, poisons, toxins, drugs, autoimmune reactions, intoxication, vascular disorders, allergies, trauma, hyperlipidemia, hypercalcemia, diabetes mellitus and idiopathic acute pancreatitis - up to 10%. It should be noted that the destruction of the retroperitoneal tissue in aseptic conditions, which occurs due to the aggressive action of activated pancreatic enzymes, leads to the destruction of fascial barriers in the retroperitoneal space and predetermines the direction of their retroperitoneal spread and, as a consequence, localization and concentration in the corresponding cellular spaces. Most surgical clinics have come to the conclusion about the preferable and maximum possible use of complex conservative therapy in the first phase of the disease compared to direct interventions on the pancreas, since postoperative mortality in sterile pancreatic necrosis and early surgical intervention is extremely high. Under the influence of timely therapeutic measures, the pathological process can be successfully stopped at the stage of interstitial pancreatitis, while in the opposite situation it develops into pancreatic necrosis. The results of the puncture biopsy method, carried out under the control of ultrasound or CT, clearly show that the initially necrotically altered tissues of the pancreas and retroperitoneal space are sterile, and the most common time for the development of purulent complications is 2-3 weeks of the disease.

Conclusions

1. A rational surgical tactic for treating patients with severe acute pancreatitis has been developed, including recognition and hospitalization of such patients in the intensive care unit, adequate conservative therapy, dynamic ultrasound and CT monitoring, diagnostic fine-needle puncture, determination of indications for surgery and timing of its implementation, and selection of a rational type of surgical intervention.
2. The advisability of "open" surgical intervention in sterile pancreatic necrosis, accompanied by persistence or progression of multiple organ failure, has been proven.
3. The reasons for the ineffectiveness of minimally invasive interventions in infected pancreatic necrosis were identified and their failure in common forms of infected pancreatic necrosis was proven.

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