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THE PROBLEM OF PERITONITIS IN MODERN ABDOMINAL SURGERY

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ABSTRACT

The relevance of the topic of peritonitis is due to its frequent occurrence as a complication of surgical diseases and high mortality in this pathology. Surgical treatment plays a key role in the treatment of peritonitis. In modern abdominal surgery, as a rule, indications for staged surgical treatment are certain factors or their complex. Modern methods of detoxification used to remove toxins from the general bloodstream are considered sufficient. The work presents information on the number of cases of acute peritonitis in patients, issues of choosing tactics and methods of treatment, indications for surgery, its type, volume and description.

Key words: acute peritonitis, surgical treatment.

INTRODUCTION

Acute peritonitis is an inflammation of the peritoneum that develops in response to the ingress of microbes into the abdominal cavity. The relevance of the topic of peritonitis treatment is due to its frequent occurrence as a complication of surgical diseases and high mortality in this pathology. In common forms of peritonitis (60%), the average mortality is 25-30%. In patients with terminal peritonitis, it increases sharply and reaches 50-70%, and the percentage of peritonitis of this form is observed in 20% of patients with peritonitis.

According to prevalence, the following types of peritonitis are distinguished:

1. Local - localized in no more than 2 of 9 anatomical areas of the abdominal cavity, where there is a possibility of exudate flowing into adjacent areas of the abdominal cavity through natural drainage channels. Variants of local peritonitis: a) limited - an abscess of the abdominal cavity, limited by adhesions; b) unlimited - not limited by adhesions, but located in a pocket of the peritoneum.

2. Diffuse: a) diffuse - occupies from 2 to 5 anatomical areas of the abdominal cavity or is located in no more than 2 of its layers; b) widespread - occupies 2 or more layers of the abdominal cavity; c) general - total inflammation of the abdominal organs and layers of the peritoneum.

According to the description of the peritoneal product, the following types of peritonitis are distinguished: serous, serous-fibrinous, purulent-fibrinous, purulent, hemorrhagic, fecal, biliary, chemical.

According to the etiological sign, primary, secondary and tertiary peritonitis are distinguished. Primary peritonitis is defined as hematogenous, lymphogenous translocation of a specific monoinfection into the abdominal cavity or transition from other organs in the form of transudate. In secondary peritonitis, infection is caused by trauma or surgical diseases of the abdominal cavity. The term tertiary (slow, persistent) peritonitis unites forms of purulent peritonitis that develop and proceed with not very pronounced clinical symptoms against the background of treatment of patients with secondary peritonitis, in whom immunogenesis is weakened, often due to various reasons [1,8].

In terms of etiology, the most common type of peritonitis is secondary peritonitis, and the most problematic type is secondary diffuse peritonitis, which is often accompanied by severe abdominal sepsis [5].

In the treatment of widespread peritonitis, surgical intervention takes the main place, without which other elements and methods of treatment lose their significance.

The main stages of surgical intervention in widespread purulent peritonitis: elimination of the source of peritonitis; intraoperative sanitation and reasonable drainage of the abdominal cavity; use all measures to drain the intestine in case of paresis and eliminate the syndrome of dynamic intestinal obstruction; selection of the option for ending the primary operation and tactics of further treatment of the patient.

To select a rational method of surgical treatment of widespread purulent peritonitis, a median laparotomy is performed. This will provide the most favorable conditions for a complete examination and cleaning of all areas of the abdominal cavity. After opening the abdominal cavity, the pathological product is

removed (using an electric suction device, sometimes gauze pads), the abdominal cavity is examined for surgical intervention, the focus of peritonitis is completely eliminated or limited from the free abdominal cavity [2, 3]. , 4].

Elimination of the source of peritonitis is the most important stage of surgical intervention. Efforts to eliminate the source of peritonitis should always correspond to the functional capabilities of the patient, as well as the risk of injury and the physiology of the operation. If it is not possible to completely remove the source, the damaged organ is removed from the peritoneum or limited with gauze pads. It should be noted that the use of gauze pads for drainage is ineffective. In widespread purulent peritonitis, special attention is paid to the excision of hollow organs, their size and the possibility of forming interorgan anastomoses at certain stages of treatment [2, 3, 4].

Lavage still remains the main method of sanitation of the abdominal cavity. At different periods of surgical development, many types of surgical intervention have been proposed, including lavage of the abdominal cavity with antibiotics and antiseptics. Currently, warm (36-38°C) isotonic solutions are widely used, with the help of which the abdominal cavity is thoroughly washed "until clean transparent water". The main purpose of lavage is the mechanical removal of toxins and bacteria. The simplest and cheapest drug used for this purpose is physiological sodium chloride solution. At the same time, the search for effective drugs and methods of sanitation of the abdominal cavity continues, which, in turn, indicates the lack of complete satisfaction with the currently available methods. Published scientific papers on the effective use of synthetic proteases immobilized in this way have begun to appear [2, 3, 4].

One of the important stages of the operation performed for diffuse purulent peritonitis is the tube drainage of the abdominal cavity. The number and quality of tubes depend on the distribution and description of peritonitis [2, 3, 4].

In peritonitis surgery, prevention and treatment of enteral insufficiency are of great importance. For this purpose, after cleaning the abdominal cavity, instructions for drainage of the small intestine are determined. Effective decompression and subsequent drainage of the small intestine are achieved by inserting a nasointestinal tube. Drainage of the stomach and the initial section of the small intestine (50-70 cm from the Treitz length) is considered especially important. In this case, it is necessary to drain the stomach with a separate nasogastric tube. The intestine can be drained through various stomas, but preference should be given to non-invasive drainage methods [3].

In diffuse purulent peritonitis, one-time operations aimed at eliminating the hearth are considered insufficient to prevent a complete relapse of the disease.

Because the inflammatory-destructive process spreads to the entire peritoneum (visceral and parietal). In such conditions, even after high-quality cleaning of the abdominal cavity, inflammatory-purulent exudate, tissue decay products, microbes and metabolic toxins begin to accumulate there, which cannot be eliminated even with the help of modern active training systems. To solve this problem, the surgeon has such methods in his arsenal as programmed relaparotomy and relaparososcopy, as well as "classical" peritoneal dialysis. For effective control of the situation with widespread purulent peritonitis, the optimal option is considered to be the use of programmed relaparotomy. The use of programmed relaparoscopy in widespread purulent peritonitis also has a number of important advantages, but due to the lack of the necessary equipment, this method has not become widespread today. "Classical" peritoneal dialysis has rarely been used in recent years due to its significant drawbacks [6].

Treatment of widespread purulent peritonitis, in which it is not always possible to implement the classical principles of surgical treatment during the primary operation, served as the basis for the implementation of two variants of tactics: a) relaparotomy "on demand", which is performed when the complicated course of the disease is not predicted during the primary operation; b) planned relaparotomy, which is performed when it is impossible to completely remove the hearth of purulent peritonitis during the primary operation and there is a negative prognosis for the course of the disease. It was the observation of such cases that prompted the development of various technical methods and the introduction of complex methods of surgical treatment into clinical practice. Their main purpose is to monitor the condition of the abdominal organs and ensure their timely surgical correction [6].

In widespread purulent peritonitis, death is caused mainly by multiple organ failure syndrome and abdominal sepsis, the development and severity of which are directly related to the severity of endotoxicosis. In diffuse purulent peritonitis, the main sources of endotoxicosis are the hearth of inflammation in the abdominal cavity, the surface of the peritoneum with severe inflammatory-destructive changes, as well as intestinal insufficiency syndrome (paresis) [3].

Modern methods of detoxification (hemodialysis, peritoneal dialysis, ultrafiltration, hemofiltration, hemodiafiltration) used to remove toxins from the general bloodstream are considered to be quite effective. Currently, there are a number of restrictions and contraindications to their use. In this regard, it is natural that there is a high interest in the development of methods that prevent the release of toxins from the site of inflammation into the bloodstream. Such studies are conducted, first of all, when studying various methods of abdominal cavity

drainage and programmed relaparotomies. Some authors attach great importance to the combined use of programmed relaparotomy and peritoneal lavage in severe forms of peritonitis [3, 4].

In modern abdominal surgery, indications for a staged surgical method are traditionally determined by the following factors or their combination: widespread purulent-fibrinous or fecal peritonitis; anaerobic peritonitis; the inability to simultaneously remove the focus of peritonitis or reliably limit it; disseminated infected pancreatic necrosis; acute mesenteric circulatory disorders; extreme severity of the patient's condition up to the impossibility of performing a full-scale operation; severe mixed abdominal trauma; impossibility of closing the anterior abdominal wall due to a high risk of recurrent intra-abdominal bleeding; intra-abdominal hypertension syndrome (compartment syndrome); a stage of peritonitis corresponding to severe sepsis or septic shock [3].

Thus, traditionally, clinical symptoms and intraoperative data are indications for using the programmed relaparotomy method. In addition, various complex patient assessment systems can be used to determine indications for relaparotomy. Some of them are designed specifically for the treatment of peritonitis. The Mannheim Peritonitis Index (MPI, MPI), the Altona Peritonitis Index (API, PIA) and its improved version PIA II, the abdominal cavity index (V.S. Saveliev, M.I. Filimonov, P.V. Podachin, 1998), the relaparotomy prognostic index (RBI), as well as the assessment of the severity of the patient's condition (APACHE, SAPS) and the degree of multiple organ failure scale (MODS, SOFA) are of great practical importance [6, 7].

Purpose of the study: to analyze the treatment tactics, treatment method, instructions for surgery, type, size and description of patients with peritonitis admitted to the 4th Clinical Hospital of Tashkent named after I. Irgashev and selected randomly.

Materials and methods of research. From January 1 to December 25, 2021, 1878 patients who were treated in the surgical department of the 4th Clinical Hospital named after I. Irgashev in Tashkent were examined. Statistical analysis methods were used to obtain the results.

Results and discussion. The medical records of 1878 patients were studied. Of these, 477 (25.4%) had acute appendicitis, 410 (21.8%) patients had acute cholecystitis, 116 (6.2%) patients had pancreatitis, 108 (5.8%) patients had acute intestinal obstruction, and 287 (15.3%) patients had a compressed hernia. 32 (1.7%) patients suffered from perforating organs, and the remaining 448 patients (23.8%) patients suffered from other surgical diseases. 1200 of these patients

underwent surgery, and 678 patients were treated conservatively. The number of patients with peritonitis was 124 (6.6%).

53% of them had local peritonitis, 47% had disseminated peritonitis. Of the total number of patients, 35.5% (44 patients) were women, 64.5% (80 patients) were men. The age of the patients ranged from 18 to 85 years (18-30 years - 46; 31-40 years - 12; 41-50 years - 18; 51-60 years - 26; 61-85 years - 22 patients). If we continue the analysis of the examined patients, we can see that peritonitis is often complicated by major nasal diseases: acute appendicitis - 44%; perforated ulcer of the stomach and duodenum - 26%; pancreatic necrosis - 6%; damage to the abdominal cavity and retroperitoneal organs - 9.6%; Acute cholecystitis (acute phlegmonous-lithic cholecystitis, choledocholithiasis, empyema of the gallbladder) - 6.4%; compressed hernia (femoral, femoral, postoperative) - 3.2%; acute intestinal obstruction (adhesion, intestinal volvulus) - 1.6%; pancreatic tumor - 1.6%; thrombosis of mesenteric vessels - 1.6%. The results of treatment of various forms of peritonitis were also analyzed. Depending on the chosen surgical tactics, the patients were divided into two groups: 1. Patients with local and widespread peritonitis treated with a semi-closed method. They underwent one operation, during which the focus of peritonitis was completely removed, the abdominal cavity was effectively cleaned and drained. The treatment effect in this group was 100%. 2. The second group consisted of patients with widespread peritonitis, whose treatment was carried out using a semi-open method. This tactic was chosen based on the following criteria: high bacterial contamination of the abdominal cavity, the impossibility of complete elimination of the source of peritonitis or its accelerating factors, the presence of multiple organ failure syndrome. Staged sanative relaparotomy was performed 24-36 hours after the primary operation. The effectiveness of treatment in this group depended on a number of factors: the period of peritonitis development and the period before the operation, the initial severity of the patient's condition, the size of the surgical wound, the effectiveness of resuscitation measures and detoxification methods. Mortality in this group was 14.5% (18 patients).

Conclusion. Among the examined patients, the total number of patients with peritonitis was 124 (6.6%), of which 53% had local peritonitis, 47% had widespread peritonitis. The most common cause of peritonitis was destructive appendicitis — 44%. In the group with generalized peritonitis, the mortality rate was high — 14.5%.

Thus, the problem of effective treatment of generalized peritonitis remains relevant. Today we see the following ways to improve the results of peritonitis treatment: 1. Introduction of new minimally invasive methods of abdominal cavity

resanitation. 2. Development of express methods for diagnosing the microbiological etiology of peritonitis, identifying the dominant pathogen and predicting their dynamic metabolism. 3. Study the possibilities of preventing intestinal anastomosis failure. 4. Correction of immunogenesis deficiency and systemic metabolic disorders using replacement therapy. 5. Conduct research on the development of enteral and food mixtures that can be absorbed by the body in the early postoperative period.

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