



## Advanced Endomesenteric Lymphotropic Therapy for Abdominal Surgical Pathology in the Postoperative Period

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**Introduction.** Postoperative complications and mortality in acute widespread peritonitis remain high, despite the improvement of diagnostic methods and improvement of the quality of therapeutic measures. High mortality is observed, especially with the development of abdominal sepsis with the development of multiple organ failure, reaching 18-37% of cases [1; 6; 10; 15].

In the treatment of acute widespread peritonitis, factors such as the fight against sources of intoxication of the body in the postoperative period are insufficiently corrected, which is a difficult problem to solve [2; 5; 13; 11].

Progressive endogenous intoxication of the body is one of the most unfavorable in prognostic value syndrome of acute widespread peritonitis, which is associated with the lesion in the abdominal cavity. The revealed process contributes to the development of functional intestinal insufficiency with the translocation of bacterial flora from the intestine to the abdominal cavity. These factors, progressing and involving organs and systems in the process, are the cause of deep metabolic disorders of the body, leading to multiple organ failure and death of the patient [4; 5; 14,17,18].

At the beginning of the disease, the primary focus of intoxication plays the main role, which often occurs due to destructive changes in the abdominal organs. These are ulcerative colitis, the etiological factors of which are still unknown [3; 12; 13; 14; 15,17,18]. The secondary focus in abdominal surgical pathology is infection of the lymph nodes of the abdominal cavity and retroperitoneal space. Against the background of which microabscesses are formed in the lymph nodes, causing further intoxication of the body. At the same time, a stagnant phenomenon is noted in the lymphatic system of the abdominal organs of patients, which also contributes to the increase of intoxication of the body. All this has a very negative impact on the infectious defense mechanisms of the intestine, providing its barrier function [1; 2; 4; 7; 12; 13]. The tertiary focus of intoxication in acute widespread peritonitis of various genesis and ulcerative colitis is a violation of the function of the gastrointestinal tract in the postoperative period, in which, due to the development of intoxication of the body, dynamic intestinal obstruction may occur, further aggravating the endotoxemia of the body [5; 6; 14,16,18].

Despite the complete elimination of the primary focus of infection, most patients continue to deteriorate and increase the degree of intoxication of the body. the question of the expediency of antibacterial therapy even with such a severe course of acute widespread peritonitis and ulcerative colitis remains unresolved [7; 10; 12; 15,16,17,18].

It is proved that one of the ways to increase the effectiveness of antibiotic therapy and correction of immunity in acute widespread peritonitis and ulcerative colitis is the introduction of drugs into the lymphatic system [10; 12; 13,15,17,18].

The search and development of new methods of targeted delivery of drugs to target organs are urgent problems of modern medicine. one of these methods is lymphotropic therapy, which ensures the creation of sufficient and stable therapeutic concentrations of drugs in the lymphatic region of the lesion by the pathological process, and therefore in the target organ.

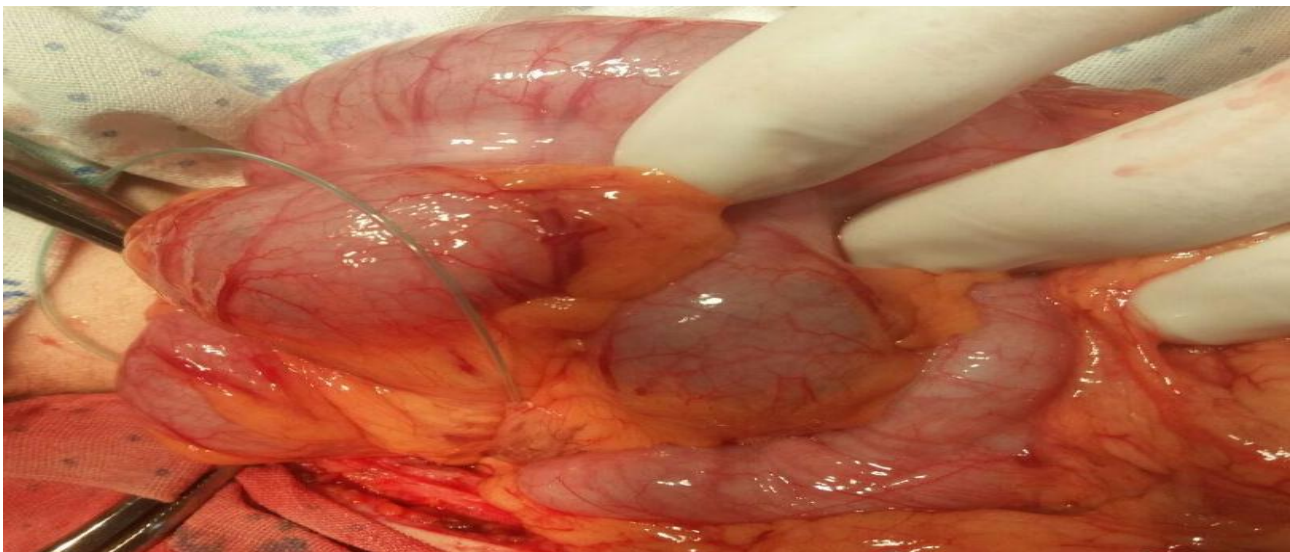
**The purpose of the work:** to improve the results of treatment of operated patients with abdominal surgical pathology by using an improved method of endomesenteric lymphotropic therapy in the postoperative period in the treatment complex.

**Material and methods:** We have analyzed the results of surgical treatment of ulcerative colitis and acute widespread peritonitis of various genesis of patients who were on inpatient treatment at the clinic of the Andijan State Medical Institute for the period from 2011 to 2021. All patients were divided into two groups: the first – control group included patients (n=93) who received traditional methods of treatment in the postoperative period, and patients in the second - main group (n=98) endomesenteric lymphotropic therapy was added to the treatment complex.

The causes of peritonitis in the main group of patients (out of 98 patients with peritonitis, only 68) who received endomesenteric lymphotropic therapy were: acute destructive appendicitis in 29 patients (29.6%), perforated gastric ulcer and duodenal ulcer – in 18 patients (18.4%), destructive cholecystitis – in 7 patients (7.1%), gynecological destructive diseases – in 9 patients (9.2%), acute intestinal obstruction – in 5 patients (5.1%). Here, in the main group, there were also 30 patients with NAC (30.6%).

The presence of large changes in the retroperitoneal space in patients with various forms of peritonitis in the form of infiltration, edema, swelling, hyperemia, purulent-inflammatory changes, as well as in all patients of the main group with nonspecific ulcerative colitis were indications for inclusion in the complex treatment of endomesenteric lymphotropic therapy.

All patients of the main group after the completion of the main stage of the operation, intraoperatively, in the mesentery of the intestine - endomesenterically, we invented a PVC - special catheter into the mesentery of the intestine for lymphotropic therapy in the postoperative period and fixed it with a thin catgut into the mesentery of the intestine (Fig.1).



**Fig. 1. Intraoperative establishment of an endo-mesenteric catheter.**

The outer end of the catheter was removed from the abdominal cavity through a contraperture and fixed to the skin of the anterior abdominal wall of the abdomen with a silk thread (Fig. 2).



**Fig. 2. Endomesenterically installed catheter.**

Our method of installing a catheter into the mesentery of the intestine differs in that we place the catheter at a distance of 2 cm from the mesenteric edge of the intestine, and not in the area of the mesentery root. By doing this, we avoid damage to blood vessels, the formation of a large hematoma in the mesentery, ligation or indentation of large lymphatic and blood vessels into it with injected drugs.

In all patients with peritonitis, first of all, attention was paid to the fight against the microbial factor. In this regard, in the postoperative period, through a catheter installed in the mesentery of the intestine, immediately after lymphostimulation, lymphotropic administration of broad-spectrum antibiotics was started, by drip. The sensitivity of the abdominal microflora to antibacterial drugs was immediately determined. When studying the microflora of the abdominal cavity, *E. coli*, *Staphylococcus*, *Pseudomonas aeruginosa* were found in 84.5% of patients. In the remaining patients with acute peritonitis, combined types of microorganisms were detected during sowing.

The greatest sensitivity of the microflora of the abdominal cavity was found to drugs of the cephalosporin series: ceftriaxone and cefazolin (84.7%) in patients with acute peritonitis. As soon as the sensitivity to the antibiotic was established, they immediately switched to the use of this drug for endomesentral lymphotropic therapy, to which the microbes were sensitive.

For lymphotropic therapy, a glucose-novocaine mixture was used as lymphostimulators in a ratio of 1:1 at a dose of 4 ml per kg of body weight of a patient with lidase (0.5 u /kg) or by adding heparin (80 u /kg) taking into account the patient's blood clotting, thymogen at a dose of 150 mcg, broad-spectrum antibiotics (cephalosporons III-IV generations: cefazolin or ceftriaxone) in a single therapeutic dose, further taking into account the sensitivity of the abdominal microflora to them.

Lymphotropic therapy for peritonitis was carried out depending on the severity of the disease and the patient's condition once or twice a day for 4-5 days. With hemicolectomies for nonspecific ulcerative colitis once a day, and with subtotal or total colectomies twice a day, also for 4-5 days.

**Results** treatment with the use of lymphotropic therapy in the postoperative period was compared with the indicators of the control group of patients.

Against the background of complex therapy in the postoperative period with the use of lymphotropic therapy, intestinal peristalsis resumed on the 2nd day in patients of the main group, and gas discharge was noted on the 3rd day. In patients of the control group, weak intestinal peristaltic noises appeared on the 3rd day after surgery. Only on the 4th-5th day the functional ability of the gastrointestinal tract was restored in this group of patients.

Compared with traditional methods of treatment of acute peritonitis, leukocytosis in the blood of patients of the main group significantly decreased on the 3rd day, and in patients of the control group, a decrease in this indicator was noted on the 6th day after surgery. LII normalized in patients of the main group on the 4th day after surgery, and in the control group on the 7th day. Also, a

decrease in ESR was observed starting from day 4 in patients of the main group, and in patients of the control group from day 6-7.

As a result of lymphotropic therapy in the complex of treatment in the postoperative period, the amount of fluid released from the abdominal cavity in patients of the main group began to decrease compared to the control group starting from the 2nd day after surgery (Table 2).

**Table 2. Dynamics of exudate release from the abdominal cavity (ml) in the postoperative period with endomesenteric lymphotropic therapy and the traditional method of treatment**

Method of treatment	1 day	2 day	3 day	4 day
Traditional treatment	117,2±10,1	100,4±7,9	77,1±5,8	38,4±6,9*
Endo mesenteric lymphotropic therapy	108,4±9,2	60,3±9,6*	20,2±4,1*	5,7±1,3*

\* - достоверность различия по сравнению с исходными данными ( $P < 0,05$ ).

**Thus**, in abdominal surgical pathology, the method of lymphotropic therapy used by us in the complex of treatment of patients in the postoperative period has a positive effect on the restorative function of the body, preventing complications from the underlying disease, reduces the cost of medicines. The patient's stay in the hospital, i.e. the bed days are reduced by  $3.5 \pm 1.5$  days.

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