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Application of Conservative Therapy and Prediction of its Efficiency in

Patients with Adhesive Peritoneum Disease Complicated with Acute Intestinal

Impairment

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### **ABSTRACT**

Conservative methods of treatment were conducted for 110 patients. Naso-intestinal endoscopic intubation of the small intestine for decompression of the gastrointestinal tract was performed to 68 patients. The estimation of the risk group for the effectiveness of conservative measures in patients with adhesive peritoneum disease complicated by acute intestinal impairment, provides an objective choice of the type of treatment. The justification and amounts of conservative measures involving endoscopic naso-intestinal intubation (ENII) of the gastrointestinal tract were determined. The resolution period of the acute intestinal impairment affected by adhesive peritoneum disease in the small risk group was  $9.8 \pm 3.4 \text{ h}$ ; in the group of average risk  $-18.6 \pm 4.4 \text{ h}$ ; all high-risk patients should be urgently operated after short-term preoperative preparation. The analysis of clinical-anamnestic-

instrumental data following by the determination of the effectiveness of conservative measures has allowed to reduce the lethality of patients with adhesive peritoneum disease complicated by acute intestinal impairment to 1.8%.

Keywords: Adhesive peritoneum disease, conservative treatment of adhesive peritoneal disease

## INTRODUCTION

Adhesive peritoneum disease is a common disease in all parts the world. In recent years, there has been a steady increase in the frequency of peritoneal adhesions and its various complications in connection with the expansion of the spectrum and amounts of surgery in cancer patients [1-3]. Since the time when operative measures on the peritoneal organs have been introduced into wide surgical practice, the problem of adhesive peritoneal disease remains relevant to the present time [4-6]. Frequent exacerbations of peritoneal adhesion, requiring hospitalization lead to a decrease in work capacity, emotional instability, disability, and a significant deterioration in the quality of life [7-10].

#### MATERIALS AND METHODS

Conservative treatment of 110 patients was performed. The endoscopic naso-intestinal intubation of the small intestine was applied to 68 patients in order to decompress the gastrointestinal tract. Clinical and instrumental data of the examination of patients with adhesive peritoneum disease were studied to assess the effectiveness of conservative treatment of patients with peritoneal adhesion, complicated with acute intestinal impairment.

We conducted a comparative analysis of the effectiveness of treatment based on clinical-anamnestic data and instrumental research methods. We have identified significant indexes for predicting the effectiveness of conservative treatment of patients with peritoneal adhesion complicated by acute intestinal impairment: the severity of the pain syndrome, anamnestic data on the quality of early performed operations on abdominal organs, ultrasound data of the abdominal cavity organs (state of hollow organs, the presence of peristalsis, fixation of the intestinal loops, effusion in the abdominal cavity).

# RESULTS AND DISCUSSION

The results of the efficacy of conservative treatment evaluation are presented in Table 1.

Table-1: Characteristics of indexes of the conservative treatment effectiveness of patients with adhesive peritoneum disease complicated by acute intestinal impairment

Index	Value	Points
Time of patient admission to a hospital	Before 24 h	0
	After 24 h	1
Number of surgery	1	1
	2	2
	3 and more	3
Type of pain	Moderate, cramping	1
	Intensive, permanent	2
Body temperature	Up to 37	0
	More than 37	1
Pulse rate	Up to 80	0
	More than 80	1
The diameter of the small intestine (ultrasound)	Up to 3.0 cm	0
	More than 3.0 cm	1
Fixation of the intestinal loops, (ultrasound)	Local	1
	Expanded	2
Violation of intestinal peristalsis, (ultrasound)	Pendulum movement of intestinal contents	0
	Absence of peristaltic waves	1
Effusion in the abdominal cavity, (ultrasound and CT)	Absent	0
	Present	1
Level of intestinal obstruction	High	1
	Low	2

Based on the above data, we identified 3 risk groups of a negative tainted of conservative treatment of patients with adhesive peritoneum disease complicated by acute intestinal impairment. High-risk group (more than 9 points) - all patients (27 patients) had a negative result of conservative treatment. All patients were urgently operated after preoperative preparation activities, diagnosis and advisability of surgical intervention were confirmed intraoperatively.

The group of average risk (from 6 to 9 points) - 51 (75.0%) from 68 patients had positive result from conservative measures. We performed a combination of conservative treatment with endoscopic naso-intestinal intubation of the gastrointestinal tract (during endoscopy was performed trans nasal insertion of the probe beyond a ligament of Treitz with purpose to conduct the active aspiration of intestinal contents). The resolution period of the acute intestinal impairment was  $18.6 \pm 4.4$  hours. In 17 patients

(25.0%) conservative measures underwent without effect, therefor patients were urgently operated. In all cases during intraoperative revision, the diagnosis and necessity of urgent operative intervention was confirmed.

Group of small risk (less than 6 points) - a positive result of conservative measures, we observed in 15 patients. In this group of patients, we applied conservative treatment without the use of ENII. The resolution period of the acute intestinal impairment was  $9.8 \pm 3.4 \text{ h}$ .

## CONCLUSIONS

Thus, the determination of the risk group for the effectiveness of conservative interventions in patients with adhesive peritoneum disease complicated by acute intestinal impairment, provides an objective choice of the type and amounts of treatment. Based on our point forecasting system, the validity and amount of conservative measures were identified using endoscopic naso-intestinal intubation of the gastrointestinal tract. The resolution period of the acute intestinal impairment affected by adhesive peritoneum disease in the low risk group was  $9.8 \pm 3.4$  h; in the group of average risk -  $18.6 \pm 4.4$  h; all high-risk patients should be urgently operated after short-term preoperative preparation. The analysis of clinical-anamnestic-instrumental data following by the determination of the effectiveness of conservative measures has allowed to reduce the lethality of patients with adhesive peritoneum disease complicated by acute intestinal impairment to 1.8%.

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