

## OUR EXPERIENCE OF LAPAROSCOPIC TREATMENT OF ACUTE ADHESIVE INTESTINAL OBSTRUCTION

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DOI: **10.5958/2249-7137.2022.00727.3**

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### ABSTRACT

*The issues of the most common causes and tactics of treatment of adhesive intestinal obstruction, its timely diagnosis (consisting in the need for X-ray, ultrasound and endoscopic examination) are discussed. It is shown that laparoscopic adhesiolysis in combination with anti-adhesive therapy makes it possible not only to minimize complications in the postoperative period, reduce the patient's stay in the hospital, provide a good cosmetic result, but also allows to verify the nature and prevalence of the adhesive process, as well as to exclude the presence of other diseases of the abdominal cavity.*

**KEYWORDS:** *Adhesive Disease, Intestinal Obstruction, Laparoscopy, Adhesiolysis.*

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### INTRODUCTION

Acute adhesive intestinal obstruction is a serious postoperative complication. The prevalence of this form of pathology, with a history of surgical interventions, ranges from 1.1 to 6%. Up to 40% of cases of intestinal obstruction are caused by acute adhesive intestinal obstruction[1, 2]. It is the cause of up to 60% of repeated laparotomies, 90% of which are performed in the first year after previous surgical interventions [3, 4].

Acute adhesive intestinal obstruction develops mainly in children older than 3 years, while in younger children it is extremely rare [5].

Laparoscopy allows to confirm the diagnosis of acute adhesive intestinal obstruction in the shortest possible time, which allows you to visualize the levels of obstruction, the cause of its occurrence, to assess the volume and localization of the adhesive process, the degree of intestinal damage[6, 9]. After assessing the condition of the intestine, laparoscopy allows endoscopic adhesiolysis (dissection of adhesions) to be performed. With the development of laparoscopic technologies, endoscopic adhesiolysis has become the main method of diagnosis and treatment of acute adhesive intestinal obstruction[7, 8]. This method is used in patients of all ages, regardless of the localization of the pathological process.

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**The purpose of the research:** Studying the results of treatment of patients with acute adhesive intestinal obstruction using laparoscopic technologies.

**Materials and methods.** The results of treatment of 53 patients treated with acute adhesive intestinal obstruction in the emergency surgical department of the Republican Scientific Center of Emergency Medical Care of the Samarkand branch, who underwent laparoscopy for diagnostic or therapeutic purposes, were analyzed. The age of the patients ranged from 4 to 67 years. The early form of acute adhesive intestinal obstruction was in 45% of patients, the late form was noted in 55%. Among the reasons for which primary laparotomy was previously performed, acute appendicitis prevailed – 78,5%. Upon admission, general blood and urine tests, biochemical homeostasis, determination of group and rhesus affiliation, survey radiography and ultrasound of abdominal organs, rectal finger examination were performed. In parallel, preoperative preparation was carried out, which included: cleansing or siphon (according to indications) enema, gastric lavage with a permanent gastric probe, catheterization of the bladder, infusion therapy. We preferred to carry out all of the above in the conditions of the intensive care unit and intensive care unit. The duration of the diagnostic stage and preoperative preparation did not exceed 2-4 hours. Videolaparoscopic operations were performed under endotracheal anesthesia using long-acting muscle relaxants.

**Results and discussion.** The introduction of the first trocar in acute adhesive intestinal obstruction was carried out at the point furthest from the postoperative scar, consistent with the data obtained by ultrasound of the abdominal cavity. Then the installation of a minimum sufficient number of trocars for the introduction of manipulators was performed, usually no more than three. The responsible component of laparoscopic intervention is the revision of the abdominal cavity, in which the following were assessed: the degree of prevalence and severity of the adhesive process; the relative location of intestinal loops, their mobility and displacement, changes on the part of the serous cover; inflammatory changes on the part of the large omentum, its involvement in the adhesive process; the presence and amount of exudate, its nature.

Depending on the data obtained, the possibility of performing radical laparoscopic intervention or the need for conversion was evaluated. The most important task during the audit was to detect the place of intestinal obstruction and identify the mechanism of intestinal obstruction. A reliable symptom in this case is the detection of a section of the intestine deformed by adhesions, with an expanded adductor and a collapsed diverting section. The most expedient technical technique seems to us to be a methodical revision of the loops of the small intestine from the ileocecal junction in the proximal direction to the detection of the transition zone of the collapsed loops into the inflated ones.

In the presence of a widespread adhesive process that does not allow for an adequate revision of the intestine and immediately identify the place of obstruction, we combine the revision with laparoscopic adhesiolysis, which makes it possible to detect the obstruction zone and eliminate the obstruction during the operation. One of the most difficult moments is the separation of adhesions during visceroparietal adhesions in the area of postoperative scars. In such cases, due to the absence of adhesions, as such, the intestine is tightly fixed in the scar, which is probably due to the partial divergence of sutures on the peritoneum after the previous operation. The isolation of such tightly fixed loops in the scar was carried out in an acute way within the tissues of the abdominal wall without affecting the actual wall of the intestine in order to avoid opening its lumen. When intestinal obstruction occurs in the early postoperative period, viscerovisceral

adhesions are quite easily separated and blunt. A very important stage of the operation is the control of intestinal patency, which also uses a thorough step-by-step revision of the small intestine from the ileocecal angle to the ligament of the Treitz. The final and mandatory stage is the rehabilitation of the abdominal cavity, which is especially important in early adhesive-paretic intestinal obstruction against the background of ongoing peritonitis. Sanitation is carried out by fractional metered irrigation-aspiration with a physiological solution of NaCl to clean washing waters. According to the indications, drainage of the abdominal cavity was carried out. The postoperative period during the first 1-2 days took place in the intensive care unit and intensive care unit, where the standard scheme of conservative therapy was used: infusion, antibacterial therapy, administration of analgesics, correction of homeostasis disorders, drug and physiotherapeutic stimulation of the intestine. After the transfer to the surgical department, special attention was paid to the early activation of the motor regime, as a prevention of recurrent adhesions in the abdominal cavity. The stitches were removed for 5-7 days. Patients were discharged with normalization of the general condition, complete restoration of the passage of contents through the intestine, on average for 7-9 days, taking into account living in rural areas.

There were no fatal outcomes in our observation. Damage to the intestine with the opening of its lumen in the analyzed material was not noted. A postoperative complication was observed in one case: suppuration of an operating (trocar) wound after surgery for early adhesive-paretic intestinal obstruction against the background of ongoing peritonitis. Conversion to an "open" operation was required in 3 cases.

## CONCLUSIONS

Acute adhesive intestinal obstruction is one of the most important problems of modern surgery. Generalization of many years of experience made it possible to develop an algorithm for the management of patients with this form of pathology and conclude that laparoscopic adhesiolysis and additional drug treatment are an effective method of therapy for acute adhesive intestinal obstruction.

## REFERENCES:

1. Abdullaev, S., Shonazarov, I., Rahmanov, U., & Toirov, A. (2021). Problems of Diagnostics, Prevention and Surgical Tactics of Treatment of Adhesive-Intestinal Obstruction. *Annals of the Romanian Society for Cell Biology*, 2289-2294.
2. Sebastian-Valverde, E., Poves, I., Membrilla-Fernández, E., Pons-Fragero, M. J., & Grande, L. (2019). The role of the laparoscopic approach in the surgical management of acute adhesive small bowel obstruction. *BMC surgery*, 19(1), 1-7.
3. Krielen, P., Di Saverio, S., Ten Broek, R., Renzi, C., Zago, M., Popivanov, G., ... & Cirocchi, R. (2020). Laparoscopic versus open approach for adhesive small bowel obstruction, a systematic review and meta-analysis of short term outcomes. *Journal of Trauma and Acute Care Surgery*, 88(6), 866-874.
4. Malkov, I. S., Bagautdinov, E. B., Sharafislamov, I. F., Zogot, S. R., & Misiev, D. K. (2018). Acute adhesive small-bowel obstruction: laparotomy or laparoscopy. *Kazan medical journal*, 99(3), 508-514.

5. Shonazarov, I., Murodullaev, S., Kamoliddinov, S., Akhmedov, A., & Djalolov, D. (2020). Diagnosis and treatment of adhesive small bowel obstruction with using laparoscopic method. *European Journal of Molecular & Clinical Medicine*, 7(3), 3192-3198.
6. Abdullaev, S., Shonazarov, I., Rahmanov, U., & Toirov, A. (2021). Problems of Diagnostics, Prevention and Surgical Tactics of Treatment of Adhesive-Intestinal Obstruction. *Annals of the Romanian Society for Cell Biology*, 2289-2294.
7. Shamsiev, A. M., & Shamsiev, Zh. A. Acute Intestinal Obstruction In Children. Optimization Of Diagnosis And Treatment. "Gomel State Medical University, 2018, 518.
8. Babazhanov, A., Bomirodov, B., Akhmedov, A., Toirov, A., & Tukhtaev, J. (2014). The effectiveness of surgical treatment of adhesive intestinal obstruction. *Journal of Problems of Biology and Medicine*, (2 (78)), 12-15.
9. Abdullaev, S., & Bomirodov, B. (2014). New technologies in the prevention of adhesive disease. *Journal of Physician's Bulletin*, 1(03), 25–28. extracted from [https://inlibrary.uz/index.php/doctors\\_herald/article/view/4837](https://inlibrary.uz/index.php/doctors_herald/article/view/4837)