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SURGICAL TREATMENT OF ACUTE ADHESIVE OBSTRUCTION OF THE SMALL INTESTINE

G.N. Rayimov[1], N.A. Saloxiddinov[2], Q.Q. Kholmatov[2], J.R. Kholmukhamedov[1].
1-Ferghana Medical Institute of Public Health, Uzbekistan.
2-Ferghana branch of Republican Scientific Center for Emergency Medical Care, Uzbekistan.

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Abstract:

The problem of peritoneal adhesions and surgical treatment of associated acute small bowel adhesionsOTKHand today it remains one of the most relevant and complex. Objective: to study and evaluate the results of surgical treatment of acute adhesive obstruction of the small intestine.
83.7% of 49 patients with OSNTK underwent one operation in the past, 14.3% - 2.
After laparotomy, 75.5% of patients had adhesive extrudes crossed, 4.1% had a small bowel + double-barrelled terminal ileostomy, 18.4% had small bowel resection, 2%had ileotransverzoanastomosis,and 1 had simultaneous operations. Intubation of the small intestine according to indications Iatrogenic injuries occurred in 12.2% of patients, postoperative complications - in 18.4%. 3 patients (6.1%) died: sepsis (1), multiple organ failure (1), COVID-19 associated with pneumonia (1).
Conclusions. Thus,acute adhesive small bowel obstruction accounts for 3.8 % of all acute surgical diseases of the abdominal cavity. The scope of the operation depended on the viability of the small intestine, the possibility of separation of the conglomerate or infiltrate, the choice of the method of intestinal incubation, and the presence of simultaneous pathology. This surgical approach resulted in 18.4% of postoperative complications, 4.1% - relaparotomy, 6.1% - mortality.

Keywords: Small intestine, acute obstruction, adhesions, surgical treatment.

INTRODUCTION

Analyzing the current state of the problem, the authors [2] state that according to the results of research, peritoneal adhesions are among the most frequent postoperative complications and develop in 67-91% of patients who underwent classical laparotomy access operations at different times of the postoperative period, and according to some authors - in 100% [6]. Acute intestinal obstruction refers to acute странгуляционнойintestinal strangulationobstructionand is one of the most severe manifestations of mechanical intestinal obstruction [5, 7]. According to [8], the frequency varies from 50 to 93.3% of all types of mechanical obstruction of non–tumor origin with a mortality rate of 14.2-52.4% [8]. However, according to the processed data of a number of researchers, slightly better resultsare given: adhesions are a manifestation of acute small intestinal obstruction in 40-75 % of all patients with intestinal obstruction with a mortality rate of 5-10 %, without a tendency to reduce it [3]. Surgery has no alternative in the treatment of OSNTC [2, 9, 10]. During the entire period of development of surgical treatment of this disease, classical laparotomy access is used all over the world [5, 7, 8, 9]. An important step forward was the introduction of such a new technology as video laparoscopy(VLS), which made it possible not onlyto diagnose but also to treat[3, 10]. The first results proved the advantages of minimally invasive surgical access [3, 10]. A number of local contraindications to VLS were identified: excessive abdominal distention and severe peritonitis, the need for intestinal resection, intestinal intubation of the small intestine, dense inflammatory infiltrate or conglomerate, and a history of intestinal fistula. General contraindications include unstable hemodynamics, severe comorbid conditions, and severe hypotension. conditions, heart and lung failure. Conversion varies in the range of 6-45 %, including pronounced intraperitoneal splices, the inability to revise all loops of the small intestine, doubts about the patency of deformed loops in intestinal conglomerates.

RESEARCH OBJECTIVE

To study and evaluate the results of surgical treatment of acute adhesive small bowel obstruction.

RESEARCH MATERIAL AND METHODS

We present an analysis of the clinicalmaterial of 49 patientswho were operated on in the 1st emergency abdominal Surgical Department of the Ferghana branch of the Russian National Center for Medical

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Rehabilitation of the Republic of Uzbekistan for the last 5 years, from 2018 to 2022.. This pathology was diagnosed in 49 (3.8%) patients out of 1283 operated patients with acute surgical diseases of the abdominal cavity. Among 60 patients with acute small bowel obstruction of non-tumor origin, AKI was detected in 49 (81.7%) patients. There were 17 males (34.7%) and 32 females (65.3%). According to the WHO age classification, 12 (24.5%) patients were young (18-44 years), 7 (14.3%) were middle - aged (45-59 years), 19 (38.7%) were elderly (60-74 years), and 11 (22.5%) were senile (75-90 years). In the majority of patients, 43 (87.8%), with pathology of the abdominal or pelvic organs, the primary surgical intervention was laparotomy. Thus, appendectomy was the first operation in 16 (37.2%) patients, 10 (23.3%) patients underwent gynecological operations (ovarian resection-3, hysterectomy-3, salpingectomy-2, cesarean section-2), 5 (11.6 %) — operations for complicatedduodenal ulcer (iscross-section of a perforated ulcer with pyloroplasty according to Judd-Horsley-2, excision of a bleeding ulcer with pyloroplasty according to Judd-Horsley-2 and resection of 2/3 of the moon-Balfour – 1), in 4 (9.3 %) – operations for traumatic injuries of the abdominal cavity (suturing of the liver rupture-2, wounds of the small intestine-1, splenectomy – 1), 3 (7%) – traditional cholecystectomy, 3 (7%) - Hartmann's surgery, 1 (2.3%) - right-sided hemicollectomy with ileo-transverzoanastomosis, 1 (2.3%) - drainage of the omentum sac, and only 3 (7%) - useless laparotomy. Quite rarely, 3 (6.1 %) patients were operated on in the presence of pathology of the anterior abdominal wall (inguinal autohernioplasty-2, desmoid excisionдесмоида-1). Subsequently, more than 2 operations were performed in 7 (14.3%) patients, of which 2 (28.6%)-in connection with OTN. During hospitalization, 5 (10.2%) patients were diagnosed with postoperative ventral hernia (gallstone disease, chronic calculous cholecystitis — 2), 1 (2%) — paracolostomy hernia, and 3 (6.1%) — functioning single-barrel terminal descendostomy. Comorbid pathology, consisting of 2 to 8 nosological forms, had risks for the results of treatment in 46 (93.9%) patients. Of these, 9 (19.6%) patients had the main pathology of coronary heart disease, 9 (19.6%) – generalized atherosclerosis, 8 (17.4%) – diabetes mellitus, 6 (13%) - hypertension, 5 (10.9%) - chronic obstructive pulmonary disease, 4 (8.6%) - cancer (ovarian - 2, sigmoid colon - 1, rectum - 1), 1 (2.2%) - dementia and 1 (2.2%) - opium addiction. Patients were transported by ambulance at different times from the onset of the disease, up to 6 hours-13 (26.5%) patients, within 6-12 hours - 8 (16.3%), 1-2 days - 12 (24, 5%), 3-5 days – 11 (22.5%), 7-8 days – 5 (10.2%).

RESEARCH RESULTS AND DISCUSSION

After the clinical examination, the results of additional research methods were performed and analyzed (laboratory and biochemical, survey X-ray of the abdominal cavity, Schwartz test, ultrasound, fibroesophagogastroduodenoscopy, more rarely-computed tomography, VLS). They started conservative treatment followed by dynamic follow-up. Indications for surgical intervention were established up to 6 hours after hospitalization in a surgical clinic in 9 (18.4%) patients, within 6-24 hours — 21 (42.8%), 1-2 days — in 16 (32.7%), 3-4 days — 2 (4.1%) and on the 5th day — 1 (2 %). Reasons for late determination of indications for emergency surgery: ignoring the standard terms of X-ray examination of the abdominal cavity when performing the Schwartz test; lack of barium ingress from the small intestine to the cecum in the interval of 4-6 hours after it; barium retention in the stomach, etc. During ultrasound, also ignoring the classical semiotics of OTN (swollen loops of the small intestine, its pendulum-like type of intestinal peristalsis, hydroperitoneum). Additionally, there is a lack of knowledge of the stage course of AKI with its risks and a comprehensive assessment of the dynamics of the clinical picture of the disease with the results of additional research methods. Indications for emergency surgery by classical laparotomy were established in 45 (91.9%) patients — group A. Of these, 41 (83.6%) patients had abdominal adhesions, OTN, 2 (4.1%) had acute small bowel obstruction, and 2 (4.1%) had peritonitis (?). If the preoperative diagnosis was unclear, 4 (8.2%) patients underwent VLS-group B with suspected acute pancreatitis or intestinal obstruction (3) and OTN (1). The conversion was caused by low obstruction of the small intestine with sharply swollen loops, and 2 (50 %) patients additionally had a dense conglomerate in the right ileum areas with diffuse hemorrhagic peritonitis. After laparotomy, it was found that low EUTRprevailed-42 (85.7%) patients versus high EUTR– 7 (14.3%). Peritonitis was diagnosed in 26 (53.1%) patients (diffuse hemorrhagic - 11, diffuse hemorrhagic - 7, diffuse serous - 8). The following concurrent diseases were diagnosed in 9 (18.4 %) patients, including postoperative ventral hernia (3) and paracolostomy (1), gallstone disease, chronic stone cholecystitis (2) , кистомаovarian cysts (2), Meckel's diverticulum (1). The volume of urgent operations and results are presented in Table.

The table data indicate that in the majority of patients, 40 (81.6%), the small intestine was viable, which made it possible to eliminate OTN by crossing the adhesive штранговextrudes, and only 9 (18.4 %) patients had necrotic changes, forcing resection of the small intestine with various options for primary

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recovery surgery. The method of choice was entero-enteroanastomosis (EEA) in 12.3% of patients, however, if the length of the distal part of the small intestine after resection was 4-6 cm, ileo-transverzoanastomosis (ITA)was applied in 6.1% of patients. If it was impossible to separate the dense conglomerate in 2.0% of patients, ITA was also applied, or in 4.1%, the small intestine was crossed with the formation of a double-barrelled terminal ileostomy. An important stage of the operation is considered to be the addition of surgical correction with the introduction of a naso-ionic probe in 31 (63.3%) patients or nasointestinal intubation of the small intestine according to Wangenshtin — in 16 (32.7%). The following simultaneous operations were performed in 9 (18.4%) patients: allogernioplasty sub lau (4 patients), traditional cholecystectomy (2), extirpation of ovarian cysts (2) and Meckel's diverticula (1). After the operation, 9 (18.4%) patients experienced various complications: wound suppuration — in 3, bleeding from the wound anterior abdominal wall into the abdominal cavity — in 1 patient, flaccid peritonitis — in 1, abdominal sepsis — in 1, pneumonia — in 2, multiple organ failure – in 1 patient. Relaparotomy was performed on two (4.1 %) painful patients. So, one of them on the 6th day, due to the sluggish course of peritonitis, underwent a sanation of the abdominal cavity), who died. On the 3rd day, the second patient was diagnosed with bleeding into the abdominal cavity from soft tissues of the anterior abdominal wall counterperture, which was stopped by stitching them, then-removal of the hemoperitoneum with abdominal cavity sanitation, the patient is alive. In the postoperative period, three (6.1%) patients died. The cause of death was abdominal sepsis on day 10 (1 patient), multiple organ failure due to multiple severe comorbid pathology on day 22 (1), COVID-19 associated pneumonia on day 7 (1). 46 (93.9%) patients were discharged with recovery. The average duration of treatment in the clinic was 11.3 beds/day. Despite the fact that, according to our data, AKI occurred in 3.8% of patients operated on for acute surgical pathology of the abdominal cavity, many issues are far from being resolved, as well as according to other authors [2, 5, 7, 9]. However, given the acute obstruction of the small intestine of non-tumor origin, the frequency OTKHof OTNR is low The number of patients is approaching the upper limit — 81.7 %. Literature data show large limits of fluctuations, 40-93,3 % [3, 8]. In the past, our patients most often underwent surgical interventions for urgent abdominal surgical pathology - 61.3%, among which appendectomy ranked 1st, as in other publications [5, 7]. Despite a wide range of possibilities in the diagnosis of OTN up to 6 hours after hospitalization in our clinic, its surgical correction was performed in 18.4 % of patients, a delay occurred in 81.6 % (within 6-24 hours , the operation was performed in 42.8%, 1-2 days - in 32.7%, 3-4 days - in 24.1%, and 5 days-in in 2%). The delayed operation was performed due to non-compliance with diagnostic standards [5, 7]. A new direction in the diagnosis of OTN should be the introduction of VLS [3]. We also started implementing VLS and performed it only in 8.2% of patients. Only the non-viable small intestine requires resection with EEA - according to our data, 18.4% of patients, which is consistent with the tactical approach of all surgeons. Nevertheless, most often, in order to eliminate OTKHAKI, adhesive extrudations were crossed штрангов— 75.5 % of patients. In the department of emergency abdominal surgery, small bowel intubation is a mandatory stage of surgery [5, 7]. We performed naso-ionic incubation in 63.3% of patients and nasointestinal intubation of the small intestine according to Van Genstein in 32.7% of patients. After resection of the small intestine, 6.1% of patients with a short rectum with poor blood circulation were forced to undergo ITA. IT was also forced, in the presence of a dense organ conglomerate that could not be separated, in 2.0% of patients, ITA was also applied and in 4.1%, the small intestine was crossed and a double-barrelled terminal ileosome was formed as the first stage of surgical intervention. Iatrogenic injuries are not considered in publications[3]. By the way, during our surgical interventions, they accounted for 12.2 % of patients (ileum - 5 patients, worm — like process-1). Literature sources indicate that postoperative complications can account for 23.4% [2]. Our data indicate 18.4% of these complications. Forced relaparotomy was performed in 2 (4.1 %) patients, one of whom died. Lethality is the most serious consequence of the treatment of OTN. It is ambiguous in periodicals. Thus, there is evidence that the mortality rate varies within 14.2-52.4 % [8], in the rest – 5-10 % [3]. Of our patients, 6.1% died.

CONCLUSIONS

1. Among patients with acute surgical diseases of the abdominal organs, the ABL was 3.8 %. 2. Elimination of ABL with a viable bowel in 75.5% of patients occurred after crossing the adhesive rod, in the presence of intestinal necrosis in 18.4 % - after its resection, the final stage was various variants of the fistula. Only in the presence of a dense conglomerate that could not be separated, 4.1% of patients had their small intestine crossed and a double — barrelled terminal ileostomy was applied, and 2% had ITA. 3. This surgical approach resulted in 18.4% of postoperative complications, 4.1% of relaparotomies, and 6.1% of deaths. The average bed/day was 11.3.

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REFERENCES:

1. Абрамов А.Ю., Ларичев А.Б., Волков А.В., Кончугов Р.Ю. Место интубационной декомпрессии в хирургическом лечении спаечной тонкокишечной непроходимости // Матер. Девятого Всероссийск. Съезда хирургов. Волгоград, 2000. - С. 137.
2. Андреев О.В., Дряженков Г.И., Ухтарский В.Б., Москвинова Т.Н. Хирургическая тактика при острой спаечной кишечной непроходимости //
3. Атаев С.Д., Абдулаев М.Р. Хирургия острой кишечной непроходимости в аспекте новых данных ее патогенеза // Матер. Девятого Всероссийск. Съезда хирургов. Волгоград, 2000. - С. 141.
4. Бебуришвили А.Г., Воробьев А.А., Михин И.В., Мандриков В.В. Малоинвазивные технологии в хирургическом лечении острой спаечной кишечной непроходимости // Матер. Девятого Всероссийск. Съезда хирургов. Волгоград, 2000. - С. 143-144.
5. Таранов И.И., Хакшев Н.JI. Стимуляция перистальтики кишечника в послеоперационном периоде // Матер. Девятого Всероссийск. Съезда хирургов. Волгоград, 2000. - С.220-221.
6. Райимов, Г. Н., & Косимов, Ш. Х. (2021). СОВРЕМЕННЫЕ АСПЕКТЫ ПРОФИЛАКТИКИ И ЛЕЧЕНИЯ БОЛЬНЫХ СПАЕЧНОЙ БОЛЕЗНЬЮ БРЮШИНЫ И ЕЕ ОСЛОЖНЕНИЙ. *Экономика и социум*, (11-2 (90)), 1002-1014.
7. Rayimov, G. N., Toychiyev, I. K., NA, S. B., Kholmatov, K. K., & Tillaboldiyev, A. R. (2022). FEATURES OF INTESTINAL INTUSSUSCEPTION IN ADULTS. A CLINICAL CASE. *Spectrum Journal of Innovation, Reforms and Development*, *10*, 259-262.
8. Rayimov, G. N., Xolmukhamedov, J. R., Kholmatov, K., Sh, D. S., & Nematjonov, B. (2022). ANALYSIS OF THE RESULTS OF SURGICAL TREATMENT OF ACUTE ADHESIVE INTESTINAL OBSTRUCTION.