

**PRIMARY ANASTOMOSIS IN THE SURGERY OF COLON OBSTRUCTION OF TUMOR ETIOLOGY**

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✓ *Resume*

*Acute obstructive intestinal obstruction of tumor etiology in recent years has an upward trend. Colon tumors rank third among all quality neoplasms. This paper discusses the surgical tactics of the primary anastomosis after the elimination of acute intestinal obstruction and removal of the tumor complex.*

**Key words:** *colonic obstruction of tumor etiology, primary anastomosis.*

**ПЕРВИЧНЫЙ АНАСТОМОЗ В ХИРУРГИИ ТОЛСТОКИШЕЧНОЙ НЕПРОХОДИМОСТИ ОПУХОЛЕВОЙ ЭТИОЛОГИИ**

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✓ *Резюме*

*Острая обтурационная кишечная непроходимость опухолевой этиологии в последние годы имеет тенденцию к росту. Опухоли толстой кишки занимают 3-е место среди всех злокачественных новообразований. В данной работе рассмотрена хирургическая тактика наложения первичного анастомоза после ликвидации острой кишечной непроходимости и удалением опухолевого комплекса.*

**Ключевые слова:** *толстокишечной непроходимости опухолевой этиологии, первичный анастомоз.*

**ЎСМА ЭТИОЛОГИЯЛИ ЙЎГОН ИЧАК ТУТИЛИШИДА ХИРУРГИЯДА БИРЛАМЧИ АНАСТОМОЗ**

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*Кейинги йилларда ўсма этиологияли ўткир обтурацион ичак тутилиши сони ошиб бормоқда. Барча ёмон сифатли ўсмалар ичилга йўғон ичак ўсмалари 3-ўринни эгаллайди. Бу мақолада ўткир ичак тутилишини бартараф қилиб, ўсма комплексини олиб ташлагандан кейин бирламчи анастомоз қўйшининг хирургик тактикаси қўриб чиқилган.*

**Калим сўзлар:** *ўсма этиологияли йўғон ичак тутилиши, бирламчи анастомоз.*

**Relevance**

In recent years, there has been a steady increase in patients with colon tumors. According to the WHO, this pathology ranks third among malignant neoplasms (1.23 million cases per year) [8].

Despite the introduction into clinical practice of modern highly informative methods for diagnosing diseases of the colon, the proportion of advanced and complicated forms of tumors of this

localization remains at a high level and exceeds 30% [4].

Among the complications in 15-40% of colon tumors, obstructive large bowel obstruction is most common, which occupies 85% of all emergency conditions associated with diseases of the colon. Most of these patients operate in institutions that provide emergency surgery. However, even in planned specialized oncological departments, such patients make up a considerable part [12].

Until now, the issues of tactics, volume and methods of therapeutic action remain debatable. Surgical interventions are accompanied by a higher frequency of pyoinflammatory complications (40-80%) and significant postoperative mortality (40-55%) [7]. Or in the world population 309 thousand deaths per year [2,3].

The consensus of the conference of the World Society of Emergency Surgery on the Treatment of Obstructive Colonic Obstruction, recommends in some cases the use of resection of the large intestine with primary anastomosis, observing certain indications and using a special technology for their implementation. However, the treatment of patients with acute colonic obstruction of tumor genesis requires an individual differentiated approach, taking into account the cause of the intestinal passage disorders, the severity of concomitant pathology, the degree of progression of intestinal obstruction and the possibility of a surgical hospital [11].

Such surgical approaches are not widely used in practical surgery, which makes it urgent to study this problem more closely.

**Purpose of the study:** to consider options for surgical tactics and to study the immediate results of the use of primary anastomosis in the treatment of patients with acute colonic obstruction of tumor etiology.

## Materials and methods

The study is based on observations of 193 patients with acute colonic obstruction, who were treated in the surgical department of the Tashkent State Dental Institute for the period from 2000-2018. The patients' age ranged from 19 to 88 years. There were 117 men (60.7%). women 76 (39.3%) Average age  $67.1 \pm 1.6$  years. All patients were examined. As a result of the examination, an overview fluoroscopy of the abdominal cavity, MSCT, irrigoscopy, colonoscopy, ultrasound of the abdominal cavity and large intestine confirmed the diagnosis of acute intestinal obstruction, and after a short preparation of them in an emergency or delayed manner, all patients were operated on.

Of 193 patients, 162 (83.9%) had a colon tumor as the cause of intestinal obstruction. In other cases, volvulus of the sigmoid colon (9.3%), adhesions (4.7%), Crohn's disease (2.1%).

Of 162 patients, 31 had the tumor localized in the right half (in the ascending section in 26, in the right bend in 5), in the remaining 131 patients in the left half, in the left fold in 19, in the descending section in 59, in the sigmoid colon in 48 and in 5 in the rectosigmoid region. Of the 162 patients, 103 patients were diagnosed with comorbidities.

Patients were more often admitted to the clinic in average and serious condition. The severity of the condition of these patients was due to two unfavorable combinations and the presence of intestinal obstruction and a locally advanced tumor process, and in some cases, the presence of distant metastases.

### Results and their discussion:

With right-sided localization of colonic obstruction of tumor etiology, 26 underwent hemicolectomy with the imposition of ileotransverse anastomosis "end-to-side" or "end-to-end" (in 6), in 5 patients due to peritonitis against the background of disintegration and perforation of the tumor, after thorough debridement of the abdominal cavity hemicolectomy with Brook ileostomy.

In 15 patients, tumor invasion into the retroperitoneal tissue, the ureter, the lateral abdominal wall and an increase in the pair of aortic lymph nodes and liver metastases (in 4) were observed.

All these patients also underwent radical surgery. In 11 patients, extended hemicolectomy with extensive retroperitoneal lymphadenectomy was performed, in 3 patients the right ureter was involved in the perifocal process, which was resected and then the ureter was restored to a catheter

End to end. The catheter was removed with a cystoscope on day 12. In all 11 patients, the operation was completed with the imposition of a side-to-side ileotransverse anastomosis. In 4 patients, as a result of a pronounced adhesive process in the upper floor (cholecystectomy operation), hemicolectomy was performed and the operation was completed with the imposition of an ileostomy

Of 131 patients with left-sided localization of the colon tumor complicated by intestinal obstruction, 56 patients underwent Hartmann's operation with single-barreled colostomy, 11 had sigmoid resection with end-to-end colorectoanastomosis.

In 39 patients with left-sided hemicolectomy, the operation was completed by a one-stage interintestinal anastomosis "end-to-end".

In 10 patients with a tumor of the left half complicated by intestinal obstruction, pronounced stretching of the wall of the adducting section was observed, where longitudinal and transverse ruptures of the serous membrane were noted, in connection with which, a subtotal colectomy was performed with simultaneous application of ileosigmoanastomosis or ileorectal anastomosis "end-to-side".

All operations were accompanied by nasoenteric and transanal decompression. In the postoperative period, homeostasis was corrected, electrolyte transfusion, protein drugs, drugs that improve the rheological properties of blood.

In the postoperative period, 26 patients died, which amounted to 16%.

Most of the mortality was observed in patients over 65 years of age. The cause of death was leakage of the interintestinal anastomosis (2), prolapse in the abdominal cavity of the ileostomy (2), colostomy (1), thromboembolism of the mesenteric vessels (7), continuing peritonitis (7), myocardial infarction (7).

Analyzing the causes of mortality, we noted that the age factor, the time factor was the leading one. At the same time, from the onset of symptoms of intestinal obstruction to surgery in the group of deceased was  $52.5 \pm 5.6$  hours. Probably, purulent and toxic intoxication was the main reason for the postoperative death of patients.

In the postoperative period, the situation is aggravated by the development of postoperative paralytic intestinal obstruction, which usually occurs after anesthesia and laparotomy against the background of pronounced metabolic disorders; immediate correction of the identified disorders helps to resolve these changes. Therefore, in our opinion, any striving for oncological radicalism is highly justified [1,2].

Of course, subject to the operability of the tumor. One of the most important stages of the operation that largely determines the course of the postoperative period and the outcome of treatment is adequate decompression of the intestine, nasogastrointestinal intubation is absolutely indicated for the slightest paresis of the small intestine [7].

Antegrade colon cleansing through an appendicostomy or cecostomy performed on the operating table can create conditions for a one-stage resection of the corresponding segment of the intestine with the imposition of a primary anastomosis including the left half of the colon.

Antegrade decompression on the operating table was performed as follows. At the beginning, the cecum with the appendix was brought into the wound, at the base of the appendix, a purse-string suture was applied on the cecum and tightened. Then made an appendectomy and through the stump of the appendix into the lumen of the cecum, a Foley catheter No. 18 was introduced, through which it was possible to partially suck out the gaseous fraction and liquid intestinal contents. After that, through the catheter into the intestinal lumen, 500 ml, 700 ml, 1 liter, physiological saline were introduced in stages to liquefy the intestinal contents and sucked off. At the same time, the colon decreases in size and diameter. After that, the left half of the large intestine was mobilized, depending on the volume, in this case in 10 patients, intestinal pulp was applied to the lower third of the sigmoid colon distal to the tumor, 10-15 cm, a purse-string suture was applied proximal to the upper border of the tumor in accordance with the diameter of the introduced into the lumen gut decompression tube. We used a plastic corrugated tube with a diameter of 3.5, which was inserted in the proximal direction under the cover of intestinal pulp. After its removal, at the beginning, a passive outflow of intestinal contents was carried out into a plastic bag put on the distal end of the decompression tube. Then, for the purpose of complete cleaning of the large intestine, it was washed through a Foley catheter, 100 ml of metrogil and 2.0 kanamycin were added to the solution after washing and decompression of the large intestine. After the end of irrigation, the cecostomy was closed using the usual method.

After decompression, partial retraction of the bowel wall was observed, which made it possible to perform bowel resection without any particular difficulties and establish a primary end-to-end anastomosis. To protect the anastomosis, a gas outlet tube was inserted transrectally 10-15 cm above the suture lines. We did not observe any complications associated with the anastomosis.

## Conclusions

Thus, with obstructive colonic obstruction of tumor etiology, one should strive not only to eliminate the complication, but also to perform a primary radical operation, which is favorably distinguished by the fact that the tumor is removed as a source of intoxication and metastasis [6].

1. In case of right-sided localization of the tumor, it is advisable to perform hemicolectomy with the imposition of an ileotransverse anastomosis.
2. In case of left-sided localization, in the case of minor changes in the intestinal wall, it is possible to perform a left-sided hemicolectomy

- with the imposition of an anastomosis, in case of pronounced changes in the intestinal wall, perform subtotal colectomy with ileostomy.
3. All operations must be accompanied by nasogastroenteric and transanal bowel decompression.
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