



RADICAL SURGERY FOR TUMOR-RELATED COLONIC OBSTRUCTION

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Article history:	Abstract:
<p>Received: August 20th 2025 Accepted: September 14th 2025</p>	<p>The article presents the results of an analysis of surgical treatment in 193 patients with acute colonic obstruction observed during the period 2000–2022. The main cause of obstruction in 83.9% of cases was colon tumors. The authors examine various surgical approaches for right- and left-sided tumor-related colonic obstruction, including hemicolectomy, subtotal colectomy, Hartmann's procedure, and primary anastomosis. Special attention is given to intraoperative methods of bowel decompression (cecostomy, appendicostomy), which help reduce postoperative complications. It is shown that timely surgical intervention and an individualized tactical approach—based on the anatomical and functional condition of the bowel wall and comorbidities—improve treatment outcomes. Postoperative mortality was 16%, mainly in patients over 65 years of age, which is associated with delayed admission, intoxication, and significant metabolic disturbances. The authors conclude that primary radical surgery is advisable in cases of tumor-related colonic obstruction, as it eliminates the source of intoxication and prevents further progression of the disease.</p>

Keywords: colonic obstruction; colon tumor; obstructive colonic obstruction; hemicolectomy; subtotal colectomy; Hartmann's procedure; primary anastomosis; intraoperative decompression; postoperative complications.

РАДИКАЛЬНАЯ ОПЕРАЦИЯ В ХИРУРГИИ ТОЛСТОКИШЕЧНОЙ НЕПРОХОДИМОСТИ ОПУХОЛЕВОЙ ЭТИОЛОГИИ

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Аннотация

В статье приведены результаты анализа хирургического лечения 193 пациентов с острой толстокишечной непроходимостью, наблюдавшихся в период 2000–2022 гг. Основной причиной непроходимости в 83,9% случаев являлись опухоли толстой кишки. Авторами рассмотрены варианты оперативных вмешательств при правосторонней и левосторонней локализации опухолевого процесса, включая гемиколэктомию, субтотальную колэктомию, операцию Гартманна и наложение первичных анастомозов. Особое внимание уделено методам интраоперационной декомпрессии кишечника (цекостомия, аппендикостомия), влияющим на снижение риска послеоперационных осложнений. Показано, что своевременное хирургическое вмешательство и индивидуальный выбор тактики с учетом анатомо-функциональных изменений кишечной стенки и сопутствующей патологии улучшают исходы лечения. Послеоперационная летальность составила 16%, преимущественно у пациентов старше 65 лет, что связано с поздним поступлением, интоксикацией и выраженными метаболическими нарушениями. Авторы делают вывод о целесообразности выполнения первично-радикальных операций при опухолевой кишечной непроходимости для устранения источника интоксикации и предотвращения прогрессирования заболевания.

Ключевые слова: толстокишечная непроходимость; опухоль толстой кишки; обтурационная непроходимость; гемиколэктомию; субтотальная колэктомию; операция Гартманна; первичный анастомоз; интраоперационная декомпрессия, послеоперационные осложнения.

O'SMALI ETIOLOGIYAGA EGA YO'G'ON ICHAK TUTILISHIDA RADIKAL OPERATSIYA

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Annotatsiya

Maqolada 2000–2022-yillar davomida kuzatilgan o'tkir yo'g'on ichak tutilishi bilan og'rigan 193 bemorda jarrohlik davolash natijalari tahlili keltiriladi. Holatlarning 83,9% ida tutilishning asosiy sababi yo'g'on ichak o'smalari bo'lgan. Mualliflar o'ng va chap tomonlama o'sma bilan bog'liq yo'g'on ichak tutilishida qo'llaniladigan turli jarrohlik yondashuvlarini — gemikolektomiya, subtotal kolektomiya, Gartmann amaliyoti va birlamchi anastomozni ko'rib chiqadilar. Operatsiya vaqtida ichakni dekompressiya qilish usullari (tsekostomiya, appendikostomiya) alohida ko'rib chiqilib, ularning operatsiyadan keyingi asoratlarni kamaytirishga yordam berishi ta'kidlanadi. O'z vaqtida bajarilgan jarrohlik aralashuvi va ichak devorining anatomik-funksional holati hamda hamroh kasalliklarni inobatga olgan holda tanlangan individual taktik yondashuv davolash natijalarini yaxshilashi ko'rsatilgan. Operatsiyadan keyingi o'lim 16% ni tashkil etdi; asosan 65 yoshdan oshgan bemorlarda uchrab, bu kech murojaat qilish, intoksikatsiya va og'ir metabolik buzilishlar bilan bog'liq edi. Mualliflar o'sma bilan bog'liq yo'g'on ichak tutilishida birlamchi radikal operatsiyani maqsadga muvofiq deb hisoblaydilar, chunki u intoksikatsiya manbasini bartaraf etadi va kasallikning yanada rivojlanishiga yo'l qo'ymaydi.

Kalit so'zlar:

yo'g'on ichak tutilishi; yo'g'on ichak o'smasi; obstruktiv yo'g'on ichak tutilishi; gemikolektomiya; subtotal kolektomiya; Gartmann amaliyoti; birlamchi anastomoz; intraoperatsion dekompressiya; operatsiyadan keyingi asoratlari.

In recent years, there has been a steady increase in the number of patients with colorectal tumors. According to WHO data, this pathology ranks third among malignant neoplasms.

Among complications, obstructive colonic ileus is the most common, occurring in 15–40% of colorectal tumors and accounting for 85% of all emergencies associated with colonic disease. Most of these patients undergo surgery in emergency surgical care facilities (Gataullin I.T., 2015). To date, issues of treatment strategy, scope, and methods remain debatable. Surgical interventions are associated with a higher incidence of purulent-inflammatory complications (40–80%) and significant postoperative mortality (40–55%) (Costi R. et al., 2014; Tekkis P.P. et al., 2004).

The Consensus Conference of the World Society of Emergency Surgery on the management of obstructive colonic obstruction recommends colonic resection with primary anastomosis in selected cases, adhering to specific indications and using special techniques. However, treatment of patients with acute colonic obstruction of tumor origin requires an individualized, differentiated approach considering the cause of obstruction, severity of comorbidities, degree of obstruction progression, and the capabilities of the surgical facility.

Objective of the study: to review the options for surgical management and to evaluate the immediate outcomes of radical treatment in patients with acute colonic obstruction of tumor etiology.

Materials and methods:

This study is based on observations of 193 patients with acute colonic obstruction treated from 2000 to 2022 in the surgical department of the Tashkent State Dental Institute. The patients' ages ranged from 19 to 88 years; 117 (60.7%) were men and 76 (30.3%) women. The mean age was 67.1 ± 1.6 years. All patients underwent diagnostic evaluation. Plain abdominal radiography, MSCT, irrigoscopy, colonoscopy,

ultrasound of the abdominal organs and colon confirmed acute intestinal obstruction. After short-term preparation, all patients were operated on either emergently or in a delayed emergency setting.

Of the 193 patients, in 162 (83.9%) the cause of obstruction was a colonic tumor. In the remaining cases, the causes were sigmoid volvulus (9.3%), adhesions (4.7%), and Crohn's disease (2.1%).

Among the 162 tumor patients, the tumor was located in the right colon in 31 patients (26 in the ascending colon, 5 in the hepatic flexure), and in 131 patients in the left colon: 19 in the splenic flexure, 59 in the descending colon, 48 in the sigmoid colon, and 5 in the rectosigmoid segment. Comorbidities were diagnosed in 103 of the 162 patients.

Most patients were admitted in moderate to severe condition. The severity was due to the combination of obstruction and locally advanced tumor, and in some cases, distant metastases.

Results and discussion:

For right-sided obstructive colonic tumors, 26 patients underwent hemicolectomy with ileotransverse anastomosis ("end-to-side" or "end-to-end" in 6 cases). In 5 patients with peritonitis due to tumor necrosis and perforation, hemicolectomy with Brooke ileostomy was performed after thorough abdominal sanitation.

In 15 patients, the tumor invaded the retroperitoneal fat, ureter, or lateral abdominal wall; para-aortic lymph nodes were enlarged, and 4 patients had liver metastases. All underwent hemicolectomy with extensive retroperitoneal lymphadenectomy. In 3 of these patients, the right ureter was involved and resected, followed by end-to-end reconstruction over a catheter that was removed endoscopically on postoperative day 12. In 11 patients, the surgery concluded with ileotransverse anastomosis ("side-to-side"). In 4 patients with dense adhesions in the upper abdomen (prior cholecystectomy), hemicolectomy was completed with ileostomy.



Among 131 patients with left-sided obstructive tumors, Hartmann's procedure with end colostomy was performed in 56 patients; in 11, sigmoid resection with end-to-end colorectal anastomosis was performed.

Thirty-nine patients underwent left hemicolectomy with immediate end-to-end anastomosis.

In 10 patients with severe dilation of the proximal colon and longitudinal/transverse serosal tears, subtotal colectomy with primary ileosigmoid or ileorectal anastomosis ("end-to-side") was performed.

All operations included nasoenteral and transanal decompression. Postoperatively, homeostasis correction was carried out; electrolyte and protein solutions, and agents improving blood rheology were administered.

Postoperative mortality occurred in 26 patients (16%). Mortality was mainly observed in patients older than 65. Causes included anastomotic leakage (2), intra-abdominal ileostomy prolapse (2), colostomy prolapse (1), mesenteric vessel thromboembolism (7), persistent peritonitis (7), and myocardial infarction (7).

Analysis showed that age and delayed surgical intervention were dominant factors. In the mortality group, the interval from onset of obstruction to surgery averaged 52.5 ± 5.6 hours. Likely, purulent and toxic intoxication was the main cause of postoperative death. In the postoperative period, paralytic ileus—typically arising after anesthesia and laparotomy against the background of severe metabolic disturbances—further worsened the condition. Immediate correction of these disorders contributed to improvement. Therefore, in our view, oncologic radicality is justified whenever the tumor is operable. Adequate intestinal decompression, particularly nasogastric intubation of the small intestine, is one of the most critical intraoperative steps determining postoperative course and outcomes.

Antegrade colonic cleansing via appendicostomy or cecostomy performed intraoperatively can permit one-stage resection of the affected segment with primary anastomosis, including for left-sided lesions.

Antegrade decompression was performed as follows: the cecum with appendix was delivered into the wound; a purse-string suture was placed at the base of the appendix and tightened. Appendectomy was performed, and a Foley catheter No. 18 inserted through the appendiceal stump. Gas and liquid contents were partially aspirated. Then 500 ml, 700 ml, and 1 L of saline were introduced sequentially to liquefy contents and aspirated. The colon diameter reduced as a result. The left colon was then mobilized. In 10 patients, a bowel clamp was applied to the sigmoid colon distal to the tumor; 10–15 cm proximal to the tumor, a purse-string was placed for insertion of a 3.5

mm corrugated plastic decompression tube. After removal of the clamp, passive drainage of contents into a collecting bag was achieved. Further irrigation was performed through the Foley catheter with saline containing 100 ml metrogyl and 2.0 kanamycin. After irrigation, the cecostomy was closed in the standard fashion.

After decompression, partial retraction of the bowel wall occurred, allowing resection and primary end-to-end anastomosis without difficulty. To protect the anastomosis, a transrectal gas-relief tube was inserted 10–15 cm above the suture line. No anastomosis-related complications were observed.

Conclusions:

Thus, in obstructive colonic tumors, one should strive not only to eliminate the obstruction but also to perform a primary radical operation, which is advantageous as the tumor—the source of intoxication and metastasis—is removed.

For right-sided tumors, hemicolectomy with ileotransverse anastomosis is advisable.

For left-sided tumors, when colonic wall changes are minimal, left hemicolectomy with primary anastomosis is possible; in cases of severe wall changes, subtotal colectomy with ileostomy is recommended.

All surgeries should include nasogastric and transanal intestinal decompression.

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