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CLINICAL CASE OF ACUTE INTESTINAL OBJECTION CAUSED BY A FOREIGN BODY

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Abstract

Acute intestinal obstruction of various genesis remains one of the complex and urgent problems of emergency surgery. The reasons for unsatisfactory treatment results are late medical treatment and old age of such patients. The aim of the study was to shed light on a clinical case of acute intestinal obstruction on the background of diverticulosis of the distal colon.

The patient K. was treated in 75 years with the analysis of X-ray examination X-ray, ultrasound examination of the abdominal cavity, computed tomography of the abdominal cavity. The diagnosis was: acute obstructive intestinal obstruction in the stage of decompensation on the background of concomitant pathology: Diverticulosis of the sigmoid and descending intestine. Diverticulitis. The patient underwent surgery: upper-middle

laparotomy, total nasogastrointestinal intubation, retrograde intubation of the colon, suspended sigmoidostomy, drainage of the abdominal cavity. In the postoperative period for 3 days in the fecal mass found a foreign body – a polyethylene film measuring 35x50 cm.

Thus, conducting a dynamic X-ray and sonographic examination in patients with acute obstruction of the digestive tract allows to confirm the presence of this pathology, but does not always help to establish the cause of this disease.

Key words: acute intestinal obstruction; foreign body of the colon; obstructive intestinal obstruction.

Introduction

Acute intestinal obstruction (AIO) is a problem that does not lose its relevance even at the present stage of development of surgery, because the frequency of detection of this nosology in the overall structure of surgical diseases is from 2.6 to 9.4 % [1-2]. There is a high level of postoperative mortality in AIO, ranging from 3 to 25 %, due to unresolved long-term postoperative paresis of the small intestine, which contributes to the development of enteric syndrome, failure of intestinal anastomoses, translocation of bacterial flora into the abdomen. Therefore, AIO of various genesis remains one of the complex and urgent problems of emergency surgery [3-5]. The reasons for the unsatisfactory results of treatment of such patients are their late medical treatment and the vast majority of patients with this pathology of the elderly and senile. Diagnostic and tactical problems are especially common in the treatment of the latter category of such patients. This is due to the fact that some generally accepted principles of treatment of acute abdominal surgical pathology due to old age and existing comorbidities may be ineffective in them. In addition, the variety of options for the clinical course of AIO cause considerable difficulty in diagnosis and treatment [6].

The aim of the study was to elucidate the clinical case of acute intestinal obstruction caused by a foreign body on the background of diverticulosis of the colon.

Materials and methods

The patient K. was examined and treated in 75 years with the analysis of X-ray examination of the abdominal cavity, ultrasound examination of the abdominal cavity, computed tomography of the abdominal cavity.

Research results and their discussion

Here is a clinical observation. Patient K., 75 years old, was hospitalized in the surgical department with complaints of abdominal pain, bloating, poor excretion of gases and feces,

repeated vomiting, general weakness. Ill for 2 weeks. She was treated and examined at the central district hospital. The presence of distal colonic diverticulosis in the patient was suspected, and computed tomography with pre-contrast was performed. The patient was taken to the surgical clinic of the city hospital. When performing an X-ray examination - swollen loops of the colon to the level of the ileum on the left. According to ultrasound of the abdominal cavity – thickened and swollen walls of the sigmoid colon. About 200 ml of free fluid in the pelvis.

Against the background of the initiated conservative therapy, the patient's condition improved somewhat, gases and feces were excreted in small quantities. Due to the presence of diverticulosis, it is possible that diverticulitis of the colon was decided not to perform fibrocolonoscopy due to the high risk of perforation. On April 19, 22, the patient's condition deteriorated sharply: the pain and bloating intensified, and gases stopped flowing. The radiography of the abdominal organs was re-examined – multiple horizontal levels of fluid and gas were determined. Swollen loops of the large and small intestine. No free gas was detected in the abdominal cavity. On ultrasound control of the abdominal cavity – free fluid in the pelvis (about 200 ml). A strip of fluid in the subhepatic space. The descending intestine is expanded to 50 mm (peristalsis is not defined).

In the general analysis of blood: hemoglobin – 105 g/L; erythrocytes – $3.57 \times 10^{12}/L$; hematocrit – 25.14%; leukocytes – $8.26 \times 10^9/L$; rod-nuclear – 18%; segment nuclear – 51%; lymphocytes – 18%; monocytes – 1%; In the biochemical analysis of blood: glucose – 7.54 mmol/L; total protein – 45.7 g/L; urea – 3.3 U/L; creatinine – 66 U/L; Potassium – 3.27 mmol/L; Sodium – 145.2 mmol/L; Chlorine – 99.2 mmol/L; total calcium – 1.89 mmol/L.

The presence of acute obstructive intestinal obstruction in the stage of decompensation on the background of concomitant pathology: diverticulosis of the sigmoid and descending intestine and diverticulitis was confirmed.

Coronary heart disease. Diffuse cardiosclerosis. Calcification of the aortic and mitral valves. Dilatation of the left atrium. Hypertensive disease of the II degree, degree of arterial hypertension 1-2. Hypertensive heart. Heart failure II A, with preserved left ventricular ejection fraction (57-60%).

Surgical and anesthesia risk for ASA - III.

The operation was performed - upper-middle laparotomy, total nasogastrointestinal intubation, retrograde intubation of the large intestine, suspended sigmoidostomy, drainage of the abdominal cavity. During the operation, a soft-elastic formation of the recto-sigmoid part of the colon measuring 4x5 cm was found, which was immobile on palpation. In addition, from

the descending part of the colon to the rectum are defined diverticula up to 5-6 cm in diameter, the wall in these places is dense.

The postoperative period was accompanied by hypoproteinemia, electrolyte disturbances, appropriate treatment was performed.

On the 3rd day of the postoperative period, gases began to escape naturally. On the same day, there was a chair, a foreign body was found in the fecal mass – a polyethylene film measuring 35x50 cm, with a smooth surface and holes.

The course of the postoperative period is not complicated. The wound heals with primary tension. On the 14th day the patient was discharged from the hospital of the surgical department.

Therefore, the course of acute obstruction of the digestive tract, due to various, very rare causes may not be typical for this disease and long.

Conclusion

1. The clinical course of acute obstruction of the digestive tract due to various possible causes of its occurrence is characterized by a variety of options for its clinical course, long period of the disease and the late treatment of patients for surgery.

2. Carrying out of dynamic X-ray and sonographic research at patients with acute impassability of the digestive tract allows to confirm existence of this pathology, however does not always promote establishment of the reason of this disease.

References

1. Jackson P, Vigiola Cruz M. Intestinal Obstruction: Evaluation and Management. Am Fam Physician. 2018;98(6):362-367.
2. Long B, Robertson J, Koyfman A. Emergency Medicine Evaluation and Management of Small Bowel Obstruction: Evidence-Based Recommendations. J Emerg Med. 2019;56(2):166-176. doi: 10.1016/j.jemermed.2018.10.024.
3. Benedykt V, Korobko L. Acute Small Bowel Obstruction. Some Aspects Of Conservative Treatment. Georgian Med News. 2019;(288):7-11.
4. Benedykt V. About The Role Of Digestive Tract Decompression In Patients With Acute Bowel Obstruction. Mistakes, Complications And Their Prevention. Georgian Med News. 2017;(267):103-110.
5. Paul CJJ, Dohmen J, van Beekum CJ, Willis MA, Braun L [et al]. Surgical treatment of mechanical bowel obstruction: characteristics and outcomes of geriatric patients compared to a younger cohort. Int J Colorectal Dis. 2022 ;37(6):1281-1288. doi:

10.1007/s00384-022-04152-4. Hameed T, Singh M, Nizam A, Bhatia R, Sawant G. Acute Intestinal Obstruction Due to Ileocolic Intussusception in an Adult; A Rare Presentation of Inflammatory Myofibroblastic Tumor. *Am J Case Rep.* 2020;21:e920438. doi: 10.12659/AJCR.920438.

6. Parida L. Acute intestinal obstruction in a child. *Surgery.* 2022;171(6):e31-e32. doi: 10.1016/j.surg.2021.11.017.

7. Rezapour M, Ali S, Stollman N. Diverticular Disease: An Update on Pathogenesis and Management. *Gut Liver.* 2018;12(2):125-132. doi: 10.5009/gnl16552.

8. Piscopo N, Ellul P. Diverticular Disease: A Review on Pathophysiology and Recent Evidence. *Ulster Med J.* 2020;89(2):83-88.

9. Rezapour M, Stollman N. Diverticular Disease in the Elderly. *Curr Gastroenterol Rep.* 2019;21(9):46. doi: 10.1007/s11894-019-0715-4.

10. Kupcinskas J, Strate LL, Bassotti G, Torti G, Herszènyi L [et al]. Pathogenesis of Diverticulosis and Diverticular Disease. *J Gastrointestin Liver Dis.* 2019;28(suppl. 4):7-10. doi: 10.15403/jgld-551.

11. Ticinesi A, Nouvenne A, Corrente V, Tana C, Di Mario F [et al]. Diverticular Disease: a Gut Microbiota Perspective. *J Gastrointestin Liver Dis.* 2019 Sep 1;28(3):327-337. doi: 10.15403/jgld-277.