Decompression of the gastrointestinal tract after repair operations of intestinal fistulas

Abstract: Intestinal fistulas resulting from previous surgical procedures, injuries or complications of inflammatory bowel diseases constitute a serious clinical problem. Postoperative complications are the cause of about 80% of intestinal fistulas. Conservative treatment does not always lead to healing of the fistula, especially if they are multiple. Surgical treatment is burdened with both a high rate of fistula recurrence and mortality up to 50%.

Aim of the study: Assuming that the main cause of fistula recurrence after surgical treatment is hypertension in the reconstituted gastrointestinal tract caused by paralysis and lack of effective peristalsis, effective decompression should prevent fistula relapse. A comparison of various methods of gastrointestinal decompression was performed comparing selected parameters (fluid secretion, duration of surgery, necessity of blood transfusion).

Material and methods: A retrospective study involved 128 patients operated on to provide a definitive supply of intestinal fistulas and reconstruct the continuity of the gastrointestinal tract in the years 2003-2011 at the Department of General and Clinical Surgery of the Medical University of Warsaw. All patients were referred for treatment from other hospitals. Before the transfer to the Clinic, 1 to 34 patients (5 patients) failed ineffectively to close the fistula. There were 67 women and 61 men in the study group. The average age was 53.8 (± 17) years. Laparotomies performed due to various primary and abdominal injuries were the most common reason for the fistula. The majority of cases concerned patients previously undergoing abdominal surgery for other reasons (n=31), as well as gastrointestinal obstruction (n=29). An equal number of cases (n=20) are patients after surgery for colon cancer and bowel resection due to myocardial obstruction. In 10 cases, the fistula appeared after surgery due to Crohn's disease. Trauma was the cause of 9 resections. Genital cancer was the primary cause of surgery in 6 patients. Stomach cancer occurred only in one of the analyzed groups. In 43 patients, multiple fistulas were diagnosed, including 12 in entero-atmospheric fistulas in ileus and loss of abdominal wall. The decision to perform the surgery was made in the majority of patients after curing all septic foci in the abdominal cavity and stabilizing the state of nutrition and general condition of the patient. In the postoperative course, the volume of secretions was evaluated depending on the type of decompression on 20 post-operative day, the average duration of surgery in the type of decompression selected, duration of treatment in relation to the selected decompression, and comparing relapse depending on the type of decompression selected.

Results: 128 patients were evaluated retrospectively. Decompression manner by Bishop-Koop was used in 56 patients, in 13 with Santulli method, in 19 cecostomy was established. In 8 cases, the drain was inserted through the nose, at 23 through the anus, and at 23 through the stoma. In the case of 2 people, other methods of gastrointestinal decompression were used, whereas in 9 subjects no gastrointestinal distention was observed. The test results of individual parameters are presented in the tables. It was found that gastrointestinal decompression in the Bishop-Koop or Santulli method is most effective both in the amount of secretions received as well as in the prevention of fistula recurrence.

Conclusions: In complicated intestinal fistulas, the most effective type of decompression should be used to prevent fistula relapse.