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UDC 617-089.844
DOI – https://doi.org/10.14300/mnnc.2022.17048
ISSN – 2073-8137

RADICAL TREATMENT OF UNFORMED INTESTINAL FISTULAS

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РАДИКАЛЬНОЕ ЛЕЧЕНИЕ НЕСФОРМИРОВАННЫХ ТОНКОКИШЕЧНЫХ СВИЩЕЙ

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The occurrence of unformed enteric fistulas remains an urgent problem. This is due to the low effectiveness of conventional treatment methods, leading to an increase in the number and progression of fistulas and death. Thirty patients who underwent elective abdominal emergency surgeries have been studied. Two to 5 fistula tracts have been identified; 11 (36.7 %) patients had complex fistulas. Twenty-three patients were operated on 3 to 36 times in other healthcare facilities. We operated patients after the onset of fistulas which was usually between 2 and 4 weeks. In 26 (86.7 %) cases, radical surgery was performed to remove small bowel carrying fistulas, mesentery and a segment of the anterior abdominal wall involved in the conglomerate; 3 patients underwent a bilateral disconnection of the fistulas due to severe condition, and one patient received a unilateral procedure. Thus, the treatment of unformed enteric fistulas is a complicated problem. Carrying out radical surgical treatment of this pathology is possible subject to the principles of preoperative preparation and the technical features of the implementation of the surgery.

Keywords: unformed small bowel fistulas, complex small bowel fistulas, multiple small bowel fistulas, curative therapy of unformed small bowel fistulas

Возникновение несформированных тонкокишечных свищей остается актуальной проблемой, обусловленной малой эффективностью общепринятых методов лечения, часто приводящих к увеличению количества и прогрессированию свищей и, как следствие, летальному исходу. Проанализированы результаты лечения 30 больных, перенесших плановые и экстренные оперативные вмешательства на органах брюшной полости. Выявлено от 2 до 5 свищевых ходов, у 11 (36,7 %) больных – многоуровневые свищи. Двадцать три больных были оперированы от 3 до 36 раз в других лечебных учреждениях. Оперативное лечение выполнялось в сроки от 2 суток до 4 недель. В 26 (86,7 %) случаях выполнено радикальное удаление тонкой кишки, несущей свищи, брыжейки и вовлеченного в конгломерат участка передней брюшной стенки, 3 больным из-за тяжести состояния выполнено двустороннее и 1 одностороннее отключение свищей. Таким образом, лечение несформированных тонкокишечных свищей является чрезвычайно сложной проблемой. Проведение радикального хирургического лечения данной патологии возможно только при соблюдении принципов предоперационной подготовки и технических особенностей выполнения оперативного пособия.

Ключевые слова: несформированные тонкокишечные свищи, многоуровневые тонкокишечные свищи, множественные тонкокишечные свищи, радикальное лечение несформированных тонкокишечных свищей

For citation: Glabay V. P., Tsvetkov V. O., Gobedzhishvili V. V., Eldarova Z. E., Lesovik V. S., Orlov B. B. RADICAL TREATMENT OF UNFORMED INTESTINAL FISTULAS. *Medical News of North Caucasus*. 2022;17(2):199-201. DOI – https://doi.org/10.14300/mnnc.2022.17048

Для цитирования: Глабай В. П., Цветков В. О., Гобеджишвили В. В., Эльдарова З. Э., Лесовик В. С., Орлов Б. Б. РАДИКАЛЬНОЕ ЛЕЧЕНИЕ НЕСФОРМИРОВАННЫХ ТОНКОКИШЕЧНЫХ СВИЩЕЙ. *Медицинский вестник Северного Кавказа*. 2022;17(2):199-201. DOI – https://doi.org/10.14300/mnnc.2022.17048

CT – computed tomography

IPOM – intraperitoneal onlay mesh

Intestinal fistulas have been examined for many years and local surgeons have contributed a great deal to the evolution of perspectives on their treatment [1, 2]. Unformed small bowel fistulas represent one of the complications of the most challenging and hard-to-eliminate operation due to acute and chronic conditions or abdominal injuries. Surgeons are dissatisfied with the treatment results as the mortality rate is between 50 and 90 % as they arise [3, 4].

This is due to the entrenched view among practicing surgeons about the risks of resection methods to treat unformed small bowel fistulas, especially in peritonitis, severe conditions of patients, severe infiltration and perifistular skin maceration, as well as about sufficient efficacy of excision of the fistula margins and closure of the fistula, the use of obturators, pelottes and negative pressure to remove or transfer the unformed fistulas to tubular; various devices for reinfusion of intestinal discharge [5]. At present, the dissatisfaction of practical surgeons with the generally accepted methods of treating unformed enteric fistulas and high mortality among this group of patients leads to the most detailed study of this problem.

The aim of the study was to develop and implement effective approaches in the treatment of unformed small bowel fistulas.

Material and Methods. Thirty patients with uncomformed small intestinal fistula who underwent primary surgery due to gastric diseases – 4 (13.3 %), adhesive or small or large intestinal obstruction – 8 (26.7 %), early adhesive obstruction of the small intestine – 9 (30.0 %), abdominal injuries – 3 (10.0 %), laparoscopic umbilical hernia – IPOM – 4 (13.3 %), compressed hernia, burdened with flegma hernia – 2 (6.7 %). The incidence of unscheduled small intestinal fistula after surgery for various types of intestinal obstruction, laparoscopic IPOM and girdle surgery should be noted. All observations showed multiple fistulas, 2 to 5, with 11 (36.7 %) patients having complex fistulas, i.e., located in different segments of the small intestine or simultaneously in the small and large intestines. Most patients (23 patients) underwent unsuccessful surgery three to 36 times before being admitted from other health centers; 3 (10.0 %) patients were monitored in overseas centers and were denied surgery.

In these 23 patients, parenteral nutrition was used with enteral nutrition, obturators of the fistula tract, negative pressure, filtration and re-infusion of enteral discharge into the fistula tract. The charged sum ranged from 500.0 ml to 1.5 liters, depending on the location of the fistula. The timing of the operation varied from two days after the onset of the fistula to four weeks. However, four patients were operated on within 2–3.5 months of the onset of fistula. In 3 cases, due to the severe condition of the fistula, a two-way disconnection was performed and in one case, a one-way disconnection was performed. During a recent follow-up surgery four days after the operation, an acute ulcer was identified from a small nasal fistula stitched. An emergency operation was performed, but the patient died.

Despite the characteristic clinical picture, patients underwent the fistulography, X-ray with a water-soluble contrast agent, ultrasound, CT, and laboratory research. In our work, we used the universal classification of fistulas proposed by V.I. Belokonev and E.P. Izmailov (2005). Statistical analysis was performed in MS Excel 10.0 (Microsoft, USA) and Statistica 6.0 (StatSoft, USA).

Results and Discussion. Among the patients operated, type 1 fistula was a fistula that opened into the free abdomen and was diagnosed in 3 (10.0 %) papillae; type 3 fistula opened into the purulent cavity (abscesses), isolated from the free abdomen, and drained out in 18 (60.0 %) Type 4 was a fistula that opened into a wound with uniform intestinal loops attached to a laparotomy wound or an aponeurosis defect isolated from a free abdominal cavity of 9 (30.0 %).

The resection method for treating untreated small intestinal fistula is relatively simple in theory but not always easy to implement. First, the problem of preparing the periranous smeared skin of the anterior abdominal wall in the pre-operative period because the incision bordering on the fistula passes through tissue altered by inflammation and infiltration. However, as was demonstrated in 7 cases, there was a dilemma between significant losses caused by numerous small intestinal fistulas, the severity of the patient's condition, and noticeable skin inflammation. Since the period used to prepare the skin and reverse inflammation may be a risk factor for the patient's condition, it was decided to carry out raves in such conditions, and this was done with a positive result. It is noteworthy that this attitude to the need to perform a skin incision of infected tissues and the absence of severe complications after surgery to remove a small intestinal fistula was removed.

It should be noted that during the «acute stage» of fistula, when intraabdominal pressure increases and intestinal passage is disturbed, simple fixation and use of obturators in addition to adhesions, The formation of intestinal conglomerates and inter-territorial abscesses leads nowhere and contributes to the increase in the size and number of fistulas. In view of the above, most patients undergo surgery between two days and four weeks after the onset of fistula, especially fistula, and the development of irreversible metabolic disorders where any surgery may be ineffective and late. This view is supported by an analysis of 4 (13.3 percent) fatalities. They were operated on for more than four weeks, and the correction of fluid and electrolyte disorders was ineffective, and the body weight loss was more than 10 kg. Major surgery or discon-Connection operations were not allowed with anastomotic leakage or incompetent closed ends of short intestinal loops, which were diagnosed in 2 patients. We believe that another complication is also of interest that has arisen in a patient who has suffered a two-way shutdown of several unstructured small intestinal fistula. Due to the severe condition, the disconnected segments of the afferent and efferent loops were not cut by simple stitching with a linear stapler, and the seam line was additionally peritonized. Seven days later, however, the recanalization of the autistic sutured small in-

testine developed. Two days later, the same happened to the small efferent intestine, causing further loss of the intestinal contents, rapid exhaustion, and an adverse outcome. Analysis of fatal cases makes us believe that in the presence of high fistulas, significant losses associated with them, severe condition of patients, the Maydl jejunostomy and appropriate enteral nutrition are justified in some cases, and the surgery is feasible after the subsidence of the acute phase of inflammation.

The technical aspects of the operation are arranged in the following sequence: the incision bordering on the previous surgical intervention and the incision of the fistula pathways start from the xiphoid process and are performed in the left part and stages; the permanent anatomical reference point, which is the liver, isolated from which the follower of small and large intestines are separated in stages. The same procedure is performed on the right side of the abdomen. The colon is then separated from the small, the large omentum is removed, and the other significant organ, the Trez ligament, is isolated. We isolate the small intestine to the proximal fistula in the conglomerate. And then, from the third benchmark, the iliac perspective, we separate the small intestine adhesion from the distal fistula. Removing a small intestinal loop conglomerate is usually straightforward, but it takes a long time to process a small intestinal mesentery due to infiltration. Enterenterenteric anastomosis in all our cases occurs side by side due to a change in the caliber of the afferent and efferent intestines. The total duration of operations was 291.3±24.7 minutes. Post-resection monitoring of patients with an unstructured small intestinal fistula between 1 and 5 years after surgery showed that one meter of the remaining small intestine is sufficient for the appropriate nutrient development of a class 1 malabsorption syndrome and loss of body weight from 5 to 8 kg.

Conclusions. Therefore, the treatment of non-communicable intestinal fistula is a very complex problem. The use of obturators and long-term enteral nutrition in the effere-enteric loop promotes growth in size and is not effective in complex and multiple fistulas. Radical surgical treatment of obstructed intestinal fistula should be carried out following the principles of pre-operative training and the technical features of the operation.

Disclosures: The authors declare no conflict of interest.

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