

Clinical case of three-step mechanism of intestinal fistula formation in patient with post-operational huge ventral hernia

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losses of water, electrolytes, proteins and enzymes will be the most intense. Such a pronounced water-electrolyte and other types disorders of homeostasis are included into severe complications of surgery, only after the correction of them, elimination of the small bowel fistula will be possible [3].

ABSTRACT

BACKGROUND

Treatment methods of patients with different types of intestinal fistula had developed in clinical surgery. Nevertheless, methods of operative interventions not always allow to delete fully intestinal fistulas or avoid relapse [1,2]. There are following things that point at theme's relevance: significant troubles of local and common treatment, difficult correctable water-electrolyte disorders, reduction of trophism and immune status and also high level of mortality.

CASE

As an example are demonstrated clinical case of patient 55 years old with main diagnosis: Framed complete intestinal fistula. Commissural disease. Post-operation huge ventral hernia. For this patient reconstructive operation was done in the Surgical unit of Karaganda District Medical center. Patient had operation-the name is "Resection of the small intestine is made taking into account the proportionality of the bowel's endings, then anastomosis was formed by type "end to end".

CONCLUSION

Surgical tactics such cases is determined with the nature of the fistula, complications and severity of homeostasis. When small bowel's fistula are developed then tactics would lead to surgical treatment. Fundamentally different approaches are being for the treating of uncompleted small bowel's fistulas, which are explained with the complexity of pathological changes and high risk of adverse complications and lethal outcomes.

KEYWORDS: high full external intestinal fistula, ventral hernia, total parenteral nutrition, Oliclinomel®.

INTRODUCTION

Intestinal fistulas are complication of serious diseases or the organ's damage of the abdominal cavity. If intestinal fistula's location is more proximal, therefore patient noted the appearance of painless hernia's protrusion of the postoperative scar, which appeared

When surgeons were discussing the plan of upcoming operation, in the Board of doctors were included Professor Shakeev K. T. and Professor's assistant Begezhanov B. A. After discussion and completely facts had analysed the most efficient method was chosen one-stage resection of the intestine, carrier fistula with subsequent restoration of the integrity of the intestinal tract.

However, this operation could be executed only if the condition diagnosing uncomplicated fistula, the satisfactory condition of the patient and adequate compensation protein and electrolyte disorders.

CASE HISTORY

Patient was K., 55 years old, was hospitalised in the Surgical unit of Karaganda District Medical center 8th of September 2014 year. The main patient's concerns were available of purulent-granulating wounds of the anterior abdominal wall, the allocation of wounds content brown color with a fecal odor, periodic pains across the abdomen with a delay of stool and gases. In anamnesis, which was assembled - Patient was operated in connection with a stab wound in the abdominal wall (the volume of transactions did not remember).

In 2011 he had got re-stab wound in the abdominal wall with damage to the gastrocolic ligament. The surgical wound had been suppurating in the early postoperative period. After that was healing by second intension, at discharge moment patient had got granulating wound by size 6x4 cm. The patient was observed by ambulatory surgeon within 1.5 months and he was marked by a prolonged wound healing. It should be noted that in the beginning of 2014 against the backdrop of complete well-being of the

with pushing.

The patient wore bandages during 6 months periodically by himself. At the end of August 2014 he noticed the appearance of pain and swelling of the postoperative scar and wound with purulent discharge, after that from 2th of September he noticed, wound secretions with intestinal type, increased abdominal pain, stool retention and gases.

The patient was at middle grave state upon admission to the hospital, due to pain, dyspeptic, intoxication syndromes and protein and electrolyte disorders.

We were seen pallor, dry skin, objectively asymmetry of the abdomen due to postoperative scarring and hernia at inspection time. The postoperative scar was in the midline of the abdomen, size 25.0x1.0cm, average hyperemia, edema, in the upper third of the scar has a granulating wound 13.0x10.0 cm with intestinal secretion). Hypothetically, mucosa of the small bowel was visible in the area of the wound. It's diameter was 2.0 cm.

INTERVENTION

To clarify the localisation of the fistula we were done dynamic observation of intestinal fistula, however it is noted that the chyme was achieved through the fistula 43-55 minutes after a meal, indicating a high level of fistula - jejunum. The leading and lateral loops of intestine we were defined with the finger study of fistulous channel.

Patient was done a contrast analysis at 4th day in the hospital to clarify anatomical relationships of the loops of the small intestine and it's potency. It was found that the length of the leading jejunum bowel until location of fistula was average of 75.0 cm.

The therapy was conducted for the correction of homeostasis, in which was included the removal of water and electrolyte imbalance, protein deficiency and total parenteral nutrition(TPN) [4,5].

The patient was operated after special preparation on 9th of September. The labial intestinal fistula was been separated from the anterior abdominal wall by fringing cut and after that, laparotomy was done with exeresis of postoperative scar with the edges of the skin's defects. Log into the abdominal cavity was been done with technical difficulties due to adhesions

and availability of commissures between loops of the small intestine and the abdominal wall. Stepwise selection of coarse visceroparietal and visceral adhesions viscerofrom the ileocecal junction to the conglomerate.

Jejunum fistula was detected at a distance 80 cm from the duodenojejunal flexure at the revision moment. Then mobilisation was done for leading part of bowel 25,0 cm and discharge part of 15,0 cm. Resection of the small intestine is made taking into account the proportionality of the bowel's endings, then anastomosis was formed by type "end to end".

With further revisions other pathology was not revealed, checked for gemostasis. Through separate puncture of the anterior abdominal wall left by controlling drainage tube in a small basin.

This patient had a hernia, size was 15.0-15.0cm, that was the indication to pull hernioplasty. Polypropylene mesh was set by way «in lain» sizes 15.0-15.0cm, after that Redon drainage was installed on.

OUTCOME

The postoperative course was relatively smooth, moderate pain indicated, bowel activity was restored by 3d day. TPN continued throughout 5 days and then transferred the patient diet to № 1. In the dynamics a ultrasonic testing was performed to determine the liquid accumulations in the abdominal cavity - result was negative. Skin sutures on laparotomical wounds was without inflammation, healed by first intention, sutures was removed on the 12th day. The patient was discharged in satisfactory state after 20 days of receipt of.

DISCUSSION

Surgical tactics such cases is determined with the nature of the fistula, complications and severity of homeostasis. When small bowel's fistula are completed then tactics would lead to surgical treatment. Fundamentally different approaches are being for the treating of uncompleted small bowel's fistulas, which are explained with the complexity of pathological changes and high risk of adverse complications and lethal outcomes [6].

Such patients may be subject to surgical treatment only after intensive preparing. Preoperative intensive

therapy aimed at adequate supplementation of protein and energy and water and electrolyte losses.

For treatment TPN-program are used the drug "Oliclinomel" N7-1000E, which is allowing researchers to simultaneously compensate for a deficiency of proteins, fats and carbohydrates, to correct the deficiency of macro - and micro nutrients.^{4,5} The dose of this drug was calculated from the average energy needs of approximately 25-40 kkal/kg/day and the maximum daily dose 36ml/kg, which is equivalent to 1.44 g of proteins, 5.76 g dextrose, 1.44 g of lipids per 70 kg of body weight of the patient, thus the volume of the emulsion was 2500 ml / day.

The one question of the discussion was about the reasons and mechanisms of occurrence of this fistula. The three-step mechanism of formation of fistula was offered by us. According to the historical data, repeated operations on the abdominal cavity haven't been since 2011, and granulating wound healed by secondary sutures.

The first symptoms of this disease were appeared only 3 years later, and patient's complaints were like pain and swelling in the region of postoperative scar, redness initially. It was the first level subcutaneous eventration of fistula small intestine. The main reason of formation was a mismatch bursting strength sewn wounds of the abdominal wall acting loads. A weak point in the abdominal wall was the middle third open lysis of scar, and a provoking factor for eventration was having big hernia within 6 months. It should be noted that about hernia care patient is not addressed. These two main factors have contributed to the contents of the abdominal cavity under the skin.

The second stage was damage or rupture of the intestinal wall and the formation of incomplete intestinal fistula. Most likely, we consider traumatic factor, because this patient was had anti-social way of life, and such a mechanism is difficult to exclude.

The third stage - after the rupture of the small intestine at the level of the subcutaneous tissue formed small bowel fistula through the purulent cavity, which subsequently cleansed and healed again with the formation of full intestinal fistula. In this case, there has been a transition from uncompleted to completed intestinal fistula.

Thus, in the basis of complete small bowel fistula is a difficult three-step mechanism, each link is interconnected with the next and previous logical development of the pathological process. In this clinical example, can be clearly seen all three stages of the formation of the fistula, it should be noted that the process of unrestrained developed according to the proposed theory.

Acknowledgements

The authors thank K.T. Shakeyev, DrMedSc, Professor, Department of surgical diseases №1, Karaganda State Medical University, Karaganda, Kazakhstan, for support and help with article.

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