

An alarming presentation of bowel evisceration through ileostomy: a rare cause of small bowel obstruction

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ABSTRACT

Stoma formation is a common procedure in colorectal surgery, often performed for conditions such as trauma, malignancy, and Crohn's disease. One uncommon but potentially life-threatening consequence after stoma formation is bowel evisceration through the stoma. This case report presents a rare instance of small bowel obstruction caused by parastomal small bowel evisceration within a week of loop ileostomy creation in a 70-year-old female. The patient, who underwent ileostomy for decompression before planned radiotherapy for rectal cancer, presented with abdominal distension, pain, and bilious vomiting. Emergency surgery revealed herniation of the bowel through a wide opening in the rectus sheath, which was subsequently reduced after widening the stoma site. The case highlights the importance of careful stoma construction, as improper fixation or a large abdominal wall defect can lead to complications such as evisceration. Surgeons must ensure proper stoma formation to avoid this life-threatening consequence.

Key words: Evisceration, Ileostomy, Obstruction, Stoma

Stoma formation is a very common procedure done in elective and emergency colorectal surgery for various purposes. It can be done in the setting of trauma, malignancy, Crohn's disease, or perineal sepsis for diversion. It has its own complications. More common complications include stoma necrosis, retraction, parastomal skin excoriation, and parastomal hernia. One of the rarest complications that can occur is the evisceration of bowel contents either through stoma or parastomally. The majority of cases occur in the early postoperative period, as per the literature. But some late presentations were also reported up to 18 months post-index surgery [1].

Here, we report an alarming case of small bowel obstruction that was caused by parastomal small bowel evisceration within a week of surgery. This patient subsequently needed emergency surgery.


CASE REPORT

A 70-year-old lady rushed to the emergency department with complaints of protrusion of bowel loops through her recently constructed trephine loop ileostomy a week ago, which was done for decompression of a large bowel before her planned

pre-operative radiotherapy for rectal cancer. She also had complaints of abdominal pain, distension, and multiple episodes of bilious vomiting for the past 1 day.

Upon examination, she was tachycardic (pressure-118/min) and had signs of dehydration. Her blood pressure (100/60 mmHg) and oxygen saturation (94% in room air) were normal. Her abdomen was not only visibly distended, but also she had an evisceration of her small bowel through the stoma. The evisceration was between the stoma spout and the abdominal wall (Fig. 1). This exit point compressed the intestinal lumen, causing symptoms of small bowel obstruction.

The patient was resuscitated with intravenous fluids and then underwent emergency surgery. The herniated small bowel was found to be due to a wide opening in the rectus sheath that was made during the initial construction of the ileostomy. The herniated bowels were washed thoroughly with saline and were found to be viable. The stoma of the bowel was then detached from the stoma site so that the initial trephine opening in the abdominal wall could be widened further to help reduce the herniated bowel into the abdomen. The ileostomy was reconstructed with 3-0 PDS, and the rectus sheath opening was narrowed using 1-prolene sutures. Mesh reinforcement was not done, as this was a temporary ileostomy due to be reversed after her treatment for rectal cancer. She made an uneventful post-operative recovery.

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Figure 1: This picture demonstrates the eviscerated bowel between the stoma spout and the abdominal wall incision

DISCUSSION

Formation of a de-functioning stoma is commonly performed before planned radiotherapy for rectal cancer to prevent the complete obstruction of the tumor during treatment. The loop ileostomy is generally preferred because stoma-related morbidity and risk of re-operation are significantly lower than after loop colostomy [2,3]. However, complications are still relatively common after the loop ileostomies procedure especially when it is carried out as an emergency procedure [4]. Early problems that occur commonly with ileostomies include prolapse, necrosis, stenosis of the bowel, skin irritation and excoriation, infection, electrolyte imbalance, bleeding, and retraction. Late complications include parastomal hernia and bowel obstruction.

Small bowel obstruction following ileostomy is commonly due to small trephine, twisted loop, intraperitoneal or peristomal bowel adhesions, or an acute parastomal hernia. The reported frequency is about 5–14% [5]. The presentation with bowel obstruction can be early or late. Technical failures cause most of the early post-operative bowel obstruction [6]. Early parastomal bowel evisceration can be attributed to both patient and surgical factors. Patient factors include advanced age, malnutrition, increased intra-abdominal pressure (Chronic obstructive pulmonary disease, chronic cough, or prostatomegaly), and the use of steroids. Surgical factors include disproportionate stoma diameter, wide opening in the rectus sheath, inadequate fascial and cutaneous fixation of the stoma, and delayed stoma maturation. Even regression of edema in the stoma could open up some space for evisceration of bowel loops through it [7]. It should be noted that herniation of the small bowel has been reported once in the literature following a laparoscopic ileostomy formation [8].

This condition warrants emergency surgery. Bowel loops should be checked for viability. The viable loops should be reduced after widening the stomal orifice. The stoma should be refashioned, and the rectus should be approximated properly, or else the stoma can be resited. Nonviable bowel loops need resection. Hence, careful construction of the stoma during the index surgery can avoid this dreadful complication [9].

CONCLUSION

There is a considerable difference in the quality of life for the patients in a well-constructed and sited stoma. This rare yet alarming case demonstrates that the size of the abdominal wall defect is crucial when constructing a stoma. If the defect is too small, bowel obstruction or necrosis of the stoma from vascular compromise may result; if it is too large, parastomal herniation or bowel evisceration can occur. This emphasizes the need for utmost care while constructing and siting these stomas.

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