Parastomal evisceration as an extremely rare complication of a common procedure

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ABSTRACT

The creation of an abdominal stoma is a common procedure performed as part of the treatment for many conditions. Common complications include poor stoma siting, high output, skin irritation, ischaemia, retraction, parastomal hernia and prolapse. An extremely rare stoma complication is parastomal evisceration. We present a case of a 48-year-old woman who presented to us with parastomal evisceration as a late complication of a transverse colostomy. It is the second case reported as a complication of this procedure but the first that occurred after such a long postoperative period (almost 18 months).

KEYWORDS

Colostomy – Complications – Parastomal evisceration

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The creation of a permanent or temporary stoma is a common procedure performed as part of the treatment of many conditions. It has a 6–59% complication rate. Common complications include poor stoma siting, high output, skin irritation, ischaemia, retraction, stenosis and prolapse.¹ An extremely rare stoma complication is parastomal evisceration, with only seven cases reported in the literature.^{2–8} This is the evisceration of abdominal viscera through a pre-existing stoma, either in the immediate postoperative period owing to suture line disruption or later as a result of ostomy wall necrosis. We report a case of a 48-year-old female patient who presented with parastomal evisceration 18 months after the creation of a transverse colostomy.

Case history

A 48-year-old woman presented to our surgical department with a parastomal hernia, significant colostomy prolapse, partial colostomy necrosis, and evisceration of small bowel and omentum through the colostomy (Fig 1). The colostomy was an end colostomy at the transverse colon, which had been created laparoscopically 18 months previously, when the patient was diagnosed with stage IV rectal cancer (liver and ovarian metastasis) and a rectovaginal fistula. She was diagnosed initially as having ovarian tumours, which were resected, and the histopathology report revealed an adenocarcinoma of colorectal origin. She received chemotherapy (folinic acid, fluorouracil, oxaliplatin and bevacizumab), to which there was significant response, but following the chemotherapy, she developed severe pulmonary fibrosis, which was treated with high

dose cortisone. Her past medical history included post-traumatic cardiac dysrhythmias and a pacemaker had been implanted for that reason.

Visceral reduction and colostomy reversal was performed, followed by a right hemicolectomy. Given the excellent response to chemotherapy, the small pelvis was explored, in an attempt to resect the uterus *en bloc* with the rectum so as to restore bowel continuity without any stoma but that was not feasible. Instead, a class II hysterectomy was performed owing to a palpable diffuse hardness of the uterus. Intestinal continuity was restored with a side-to-side ileo-transverse anastomosis. A loop colostomy was created at the sigmoid colon. The abdominal wall was reconstructed with primary closure. The whole procedure was carried out under combined epidural and spinal anaesthesia with intravenous sedation (remifentanyl, ketamine, midazolam). The postoperative period was uneventful and the patient was discharged from the hospital on the tenth postoperative day. Surprisingly, the histopathology report of the uterus specimen showed endometrial adenocarcinoma.

Discussion

As parastomal evisceration is an extremely rare stoma complication with only seven cases reported worldwide, the underlying mechanism is not thoroughly defined. In our case, we believe that chronic colostomy prolapse and reduction in conjunction with an underlying parastomal hernia eventually caused necrosis of the colostomy wall and evisceration. Additional risk factors such as a sustained cough and high doses of steroids might have contributed.

Figure 1 Parastomal evisceration: small bowel and omentum visible through the end colostomy

The majority of the published cases of parastomal evisceration were presented as a complication of an ileostomy.^{2–5,7} There have been only two reports on parastomal evisceration through a colostomy,^{6,7} which makes our case even more rare. Villa *et al* reported an evisceration through a transverse loop colostomy, which occurred several months after the stoma construction,⁶ in contrast to all the other cases, which described evisceration as an immediate or early postoperative complication. The rarity of our case is also attributed to the fact that the evisceration took place much later than has been reported previously. Moreover, our case is the only one where the underlying mechanism seems to be the combination of a parastomal hernia and a chronic colostomy prolapse/reduction.

Conclusions

Despite its rarity, parastomal evisceration is a life threatening stoma complication in need of urgent treatment. This highlights the difficulties in stoma formation in addition to the high incidence of parastomal herniation. Continued studies should be conducted on preventing both herniation and evisceration as avoiding these is a crucial part of stoma formation.

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