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CORRESPONDENCE

Recurrent ileostomy prolapse: is it a solved problem?

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Dear Editor,

End ileostomy, introduced by Brooke [1] in 1952, has become a popular procedure in colorectal surgery. Reported postoperative complication rates range from 5 to 100% [2]. The most common complications include prolapse, necrosis, parastomal hernia and peristomal skin erosions.

Stomal prolapse, as a long-term complication, occurs in 22% of adults and 38% of children [3]. It is caused by the invagination of proximal redundant bowel through the distal part in patients with ileostomy or colostomy. A loop stoma poses a greater risk of prolapse than an end stoma. Loop colostomy is more prone to prolapse than is ileostomy. Prolapse rates ranging between 3 and 42% have been reported [4, 5]. Immediate postoperative stomal prolapse is very rare.

We present a case of small bowel obstruction caused by prolapse and intussusception through end ileostomy in a 36-year-old woman who underwent urgent laparotomy due to Crohn's disease of the terminal ileum close to the ileocaecal valve. The patient was diagnosed with Crohn's disease in 2008. She was treated conservatively (Salofalk, Metypred, PPI, Scopolan). Despite increasing symptoms of obstruction, the patient was not treated surgically. She slowly deteriorated and lost weight.

At admission in July 2008, the patient's BMI was 14.5 (body weight 42 kg), and her serum albumin level was 2.28%. The patient presented with signs and symptoms of small bowel obstruction. After a short-term preparation, the patient underwent laparotomy. At laparotomy, a 19-cm-long loop of distal ileum was found to be narrowed, inflamed, edematous, congested, thickened and causing ileal obstruction. The ileum, 11 cm in diameter and 30–40 cm long, was distended and inflamed. Proximal small bowel loops looked normal.

The patient underwent partial resection of the diseased ileum. End ileostomy was performed to avoid primary anastomosis, because the patient was considered high-risk, with hypoalbuminemia and malnourishment. It was difficult to perform end ileostomy with eversion due to extensive inflammation. In addition, the everted ileostomy was fixed with through-and-through u-sutures to prevent de-eversion. The free edge of the ileal mesentery was sutured to the lateral parietal peritoneum. On postoperative day 2, a marked prolapse (30 cm) of small bowel through the ileostomy occurred.

Manual reduction of the prolapse was unsuccessful. The patient was taken to the operating room (OR), where the prolapse was reduced under general anesthesia. On postoperative day 6, marked prolapse of at least 30 cm in small bowel recurred. The patient underwent laparotomy, and the prolapse and ileal intussusception were reduced.

The terminal 40 cm of the ileum was thickened and distended up to 9–11 cm. A modified Reymond's intestinal plication [6] of 4 ileal loops, each about 15 cm long, was performed. A single row of interrupted 3–0 Vicryl stitches (Ethicon Inc., Cincinnati, USA) was placed on mesentery approximately 1 cm away from its attachment to the bowel. The fixation of the terminal 60–70 cm of ileum prevented a subsequent prolapse and intussusception of the narrowed proximal ileal loops into a wide and stiff terminal ileum.

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On the day following this procedure, the patient began to tolerate a normal diet, and she was discharged 1 week later. At 2-week follow-up, the patient was in very good condition with an almost normal looking ileostomy.

The preventive procedure used in our case of a 36-year-old female patient with 2 episodes of early postoperative ileostomy prolapse resembles the Nobel procedure that has been used in a similar case described by Irving et al. [7] in 1955. As this was the first case of this nature I encountered in my 47-year surgical practice, I have the following 2 questions:

1) Is it better to perform end or lateral ileostomy in a wide, inflamed, stiff ileum?
2) How can the invagination of peristaltic and narrow proximal small bowel into the distended terminal ileum be prevented?

Any comments and remarks concerning the aforesaid questions will be greatly appreciated.

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