CASE REPORT

Evisceration of the small bowel through a perforated and prolapsed sigmoid colon: an unusual presentation of rectal prolapse

Arshad Ahmad,¹ Suresh Kumar,² Abhinav Arun Sonkar,³ Sanjeev Kumar⁴

¹Department of Surgery, King George's Medical University, Lucknow, Uttar Pradesh, India

²Department of General Surgery, CSM (Erstwhile King George's) Medical University, Lucknow, Uttar Pradesh, India

³CSM Medical University, Lucknow, Uttar Pradesh, India

⁴Department of General Surgery, King George's Medical University Lucknow, Lucknow, Uttar Pradesh, India

Correspondence to

Professor Arshad Ahmad, arshadahmadkgmu@gmail.com

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SUMMARY

Spontaneous prolapse of the sigmoid colon and evisceration of the small bowel through a rupture in the rectosigmoid is a rare presentation. We report a case of a 60-year-old man presenting with massive small bowel evisceration through a perforation in a prolapsed sigmoid colon. The patient had a 2-year history of rectal prolapse. He was also incontinent for flatus and liquid stool. There was no other significant medical history. After reduction of the small intestine, a large perforation was seen in the prolapsed sigmoid colon. The sigmoid colon was identified by presence of appendices epiploicae and taeniae coli. After initial resuscitation, an emergency laparotomy was performed. The perforated sigmoid colon was resected and a Hartmann's colostomy was created. This resulted in complete recovery. Reversal of the Hartmann's colostomy was performed after 6 weeks.

BACKGROUND

Spontaneous rupture of the rectosigmoid colon and herniation of the small intestine through the ruptured site and eventual evisceration through the anus is a very rare event. This pathology is more frequent in elderly patients and usually produced spontaneously. Of the nearly 70 cases reported in the literature, rectal prolapse is the predisposing factor most frequently related to this pathology. Perforation of the sigmoid colon or rectum is seen as a complication of various pathological conditions such as diverticular disease, carcinoma, colitis, blunt or penetrating trauma, or iatrogenic injuries during colonoscopy. However, protrusion of several loops of small intestine through the anus after spontaneous rectosigmoid perforation is a rare presentation.

CASE PRESENTATION

A 55-year-old man presented to surgical emergency, with evisceration of the small intestine through the anus (figure 1). The prolapse followed straining during defaecation and severe pain in the lower abdomen. There was a 2-year history of rectal prolapse that was reduced manually by the patient himself. The patient was incontinent for flatus and liquid stool for the same period; however, there was no incontinence of solid stool. The patient was pale with tachycardia and hypotension. On examination, the small intestine was seen protruding through the prolapsed and perforated large bowel (figure 2). There was no active bleeding; however,

Figure 1 Eviscerated small intestine.

the large bowel was oedematous and bulky. After reducing the small bowel, a large perforation was seen in the prolapsed sigmoid colon. The sigmoid colon was identified by presence of appendices epiploicae (figure 3) and taeniae coli. The abdomen was not distended but there was tenderness on deep palpation. There was no significant medical history.

TREATMENT

The initial management was resuscitation with intravenous volume replacement. The prolapsed

Figure 2 Oedematous rectum.

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Figure 3 Appendices epiploicae visible through a perforation in the sigmoid colon.

small bowel was washed with warm saline and reduced gently. An emergency laparotomy was performed. There was no faecal contamination in the peritoneal cavity. The small intestine was examined and no injury found over it. A perforation of about 5 cm was present in the sigmoid colon at the antimesenteric border. No active bleeding was present. The sigmoid colon was resected and a Hartmann's colostomy was created. A colorectal anastomosis was not performed as the rectum was very oedematous and inflamed, and the patient was anaemic. After peritoneal lavage, a drain was placed in the pelvis and the abdomen was closed.

OUTCOME AND FOLLOW-UP

The postoperative period was uneventful and the patient was discharged after 10 days. The histopathology of the resected sigmoid colon did not show any significant pathology. Six weeks later, Hartmann's reversal was performed in an elective setting. The patient was followed up to 6 months after the colostomy reversal and there was no episode of rectal prolapse. The overall continence status of the patient also improved.

DISCUSSION

Spontaneous rupture of the rectum along with massive ileal evisceration because of increased intra-abdominal pressure is a rare complication of rectal prolapse in adults.¹ Most of the cases are associated with chronic prolapse of the rectum and an event of sudden increase in intra-abdominal pressure. The earliest

reported case was in 1827, by Benjamin Brodie.² Spontaneous colonic and rectal perforation may occur in presence of diverticulosis, malignancy, toxic megacolon and previous irradiation. It may be a consequence of blunt or penetrating trauma and iatrogenic injury during colonoscopic procedures. However, spontaneous perforation of the sigmoid colon following rectosigmoid prolapse and evisceration of the small bowel is a rare phenomenon. The primary mechanism of rectal prolapse is a sliding hernia, in which the pouch of Douglas and contained viscera form the sac. The hernial sac invaginates the anterior wall of the rectum into the rectal lumen, resulting in ischaemia and weakening, making it more vulnerable to rectal perforation, allowing the small bowel to herniate and eviscerate through the anal canal.³

In this case, the sigmoid colon was prolapsed and perforated. As in this case, it is usually associated with evisceration of the small bowel. Omental extrusion has also been reported.⁴

The initial management involves resuscitation and reduction of the small bowel to prevent ischaemia, perforation and further fluid loss.⁵ This is followed by laparotomy and repair of the perforation. A colorectal anastomosis with or without a diverting stoma is generally a reasonable option. However, a Hartmann's colostomy may be a safer option in patients with haemodynamic instability, anaemia and an oedematous rectum.

Learning points

- ▶ A complete rectal prolapse may be associated with variable degrees of incontinence.
- ▶ The rectosigmoid may perforate following thinning and ischaemia leading to evisceration of the small bowel.
- ▶ A Hartmann's colostomy may be a safer option in an emergency, if the patient is anaemic and the rectum is very oedematous.

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