ILEOSTOMY VOLVULUS AS AN UNDER-REPORTED PROBLEM CAUSING SMALL BOWEL OBSTRUCTION IN PATIENTS LIVING WITH OSTOMY

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BACKGROUND

Ileostomy volvulus is a rare cause of small bowel obstruction (SBO). We present an unusual case of ileostomy volvulus without the presence of adhesions in a 44 year-old female with ulcerative colitis with a recent ileostomy complicated by SBO secondary to volvulus with no adhesion formation. We also conducted a systematic review on ileostomy-related SBO.

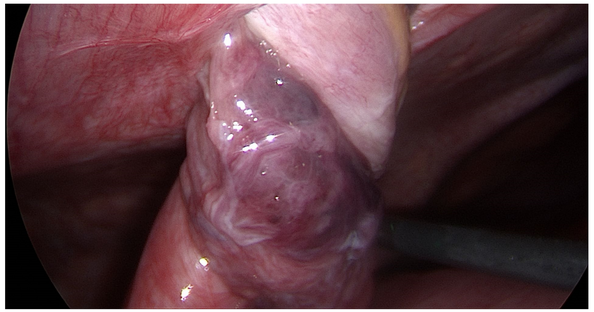


Figure 1. Ileostomy volvulus without adhesions



Figure 2. Resection of distal small bowel that appeared purple-grey

CASE REPORT

A 44-year-old female with ulcerative colitis presented to a regional emergency department with worsening abdominal pain, feculent vomiting and high stoma output. Her past medical history included Turner's syndrome, medically refractory ulcerative colitis (refractive to azathioprine, vedolizumab and adalimumab), of which she had a laparoscopic total colectomy with end ileostomy and six months later, a completion proctectomy.

She presented two months earlier with similar symptoms, however her stoma was unable to be digitated and computerised tomography (CT) revealed SBO with a transition point at the level of the right iliac fossa ileostomy. The previous admission was managed conservatively with nasogastric tube insertion.

On examination, stoma appeared healthy and digital examination revealed superior parastomal hernia that was reducible. A clinical diagnosis of SBO with stoma outlet obstruction and volvulus was made. Intraoperatively, a small bowel volvulus and short segment of dusky small bowel along the ileostomy axis was found, but no parastomal hernia or adhesions. Ileostomy volvulus was reduced laparoscopically and distal purple-grey bowel was resected, and a local revision of end-ileostomy was performed. Her admission was complicated by bacteraemia, hyponatraemia and sinus tachycardia, but the patient was discharged 15 days post-operation and showed no recurrence of volvulus or SBO.

METHOD

- Pubmed (Medline), Embase, Google Scholar, Scopus and Cochrane CENTRAL databases were searched from infinity until August 2022

RESULTS

- Total of 7 studies, comprising of 967 patients
- Stoma outlet obstruction (SOO) was reported in 159 patients, of which 12 had ileostomy volvulus as the cause
- Possible risk factors for volvulus in the absence of adhesions include increased rectus abdominis muscle thickness $\geq$10mm on CT, preoperative steroid dosing, high stoma output and presence of malignant tumours
- Anti-mesenteric fixation may be considered for correcting ileostomy orientation and reducing the risk of SOO
- Volvulus in absence of adhesions seldom reported due to difficulty identifying and diagnosing volvulus given its aetiology can be misattributed to subfascial adhesions
- SOO definitions remain unclear

CONCLUSION

- This case demonstrates need for high clinical suspicion for SOO in patients with loop ileostomy and need for rapid management
- Given limited studies available, large-scale studies are needed to validate our findings