Incarcerated stomach in a parastomal hernia: A rare but important differential in the diagnosis of Upper gastrointestinal bleeding

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Summary

Parastomal hernia is a rare cause of upper gastrointestinal bleeding. We present a case of an 82-year-old lady who presented with a one-month history of abdominal pain associated with coffee ground vomiting and intermittent melena. Gastroscopy showed bleeding from pyloric canal without a definite lesion. Abdominal CT showed herniation of the pre-pyloric and pyloric regions of the stomach into the hernial sac. She underwent a laparoscopic repair with extensive adhesiolysis, reduction of stomach, approximation of defect and placement of a mesh. She made an excellent recovery and had no post-operative complications.

Key words: Parastomal hernia, Stomach

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Introduction

Despite recent advances in surgical techniques, the incidence rate of parastomal hernia and associated complications are increasing (1). Of particular concern is cases where the stomach or nearby structures are involved, as these cases often present with a vague clinical picture that mimics gastric ulceration or obstruction leading to delays in diagnosis and management. Upper gastrointestinal bleeding as a result of gastric parastomal hernia remains an uncommon and poorly characterised complication of ostomy procedures, and to date, there has been little agreement on what is the best line of management for patients presenting with parastomal hernia with gastric involvement. In this study, we present a case of an 82-year-old lady who presented with a one-month history of abdominal pain associated with coffee ground vomiting and intermittent melena and was found to have parastomal hernia containing pre-pyloric and pyloric regions of the stomach; she was managed successfully with surgical reduction and repair. Given the rarity and the clinical need, we present a comprehensive review of case reports of parastomal hernia containing stomach and associated complication.

Case report

82-year-old lady presented with one-month history of abdominal pain, coffee ground vomiting and intermittent melena. She underwent a panproctocolectomy and terminal ileostomy at the age of 18 for ulcerative colitis. Her past medical history was significant for deep venous thrombosis for which she was on warfarin therapy. On examination her abdomen was soft, non-tender and her stoma was functioning. An abdominal contrast-enhanced computed tomography of abdomen and pelvis (CT-AP) scan showed a complicated parastomal hernia comprising the pre-pyloric and pyloric regions of the stomach with displacement of the first part of the duodenum (Figure 1).

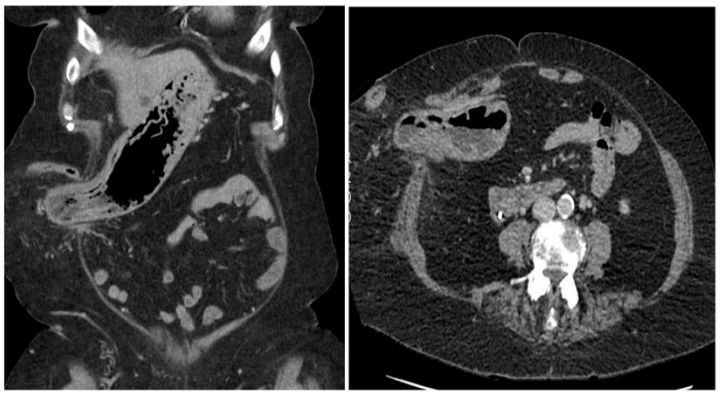

Figure 1: CT abdomen and pelvis showing stomach in the parastomal hernia

She underwent an Oesophago-Gastro-Duodenoscopy (OGD) and was found to have active bleeding from pyloric canal, however, no definite ulcer was found. Despite maximum conservative management, her symptoms increased, and patient wished to undergo surgical repair.

On laparoscopic exploration, a large incarcerated parastomal hernia with the omentum and antrum of the stomach (Figure 2).

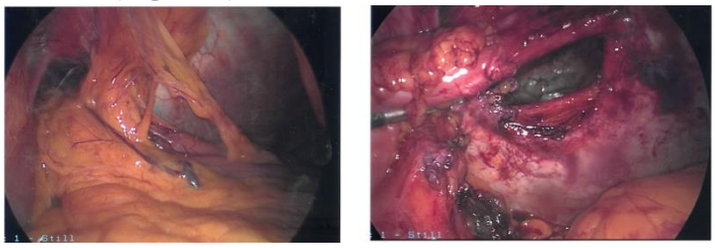

Figure 2: The defect containing stomach (left) and after reduction of contents(right)

The stomach looked bruised however it was viable. The stomach was reduced, the hernia sac was almost completely resected, and the defect was repaired with suturing and mesh placement (Figure 3).

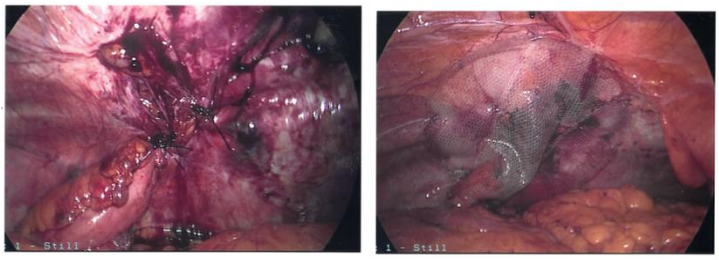

Figure 3: Repair of the defect with sutures(left) then mesh (right)

Her postoperative period was uneventful. She has now been on our follow-up for the last 12 months with no recurrence of her symptoms.

Discussion

We report this case of parastomal hernia complicated with upper Gastrointestinal bleeding in an elderly lady who underwent panproctocolectomy and terminal ileostomy 64 years ago. Despite her fragility and significant comorbidities, she underwent a laparoscopic repair and made an excellent recovery. Right iliac parastomal hernia containing stomach remains uncommon. To our knowledge, nine previous cases has described parastomal hernia with gastric involvement (Table 1). Gastric outlet obstruction was the presenting complaint in the majority of reported cases of gastric involvement in parastomal hernia.

Table 1: Previous case reports on parastomal hernias with gastric inolvement

Author	Year	Age	Sex	Presenting complain	Management
Waheed et al (2)	2019	58	F	Nausea, Malaise , Abdominal pain	Conservative
Barber-Millet et al (3)	2014	69	F	Vomiting , Abdominal pain	Surgical
Marsh et al (4)	2013	81	M	vomiting , abdominal pain, distention .	Surgical
Ramia-Angel et al (5)	2012	64	F	Abdominal pain , vomiting	Conservative
Bota et al (6)	2012	41	F	vomiting , upper abdominal pain, weight loss	Surgical
Ilyas et al (7)	2012	93	F	vomiting, abdominal distention.	Surgical
Bull et al (8)	2019	85	F	Abdominal pain , Vomiting	Surgical
Centauri et al (9)	2019	83	F	vomiting	Conservative
De Andrade et al (10)	2018	69	F	abdominal pain, bilious vomiting, non-functioning stoma	Surgical

The underlying mechanism behind gastric herniation into parastomal space remains unclear. While the stomach lays in a relatively fixed anatomical position, previous reports have suggested that in a proportion of women of advanced age and history of multiple pregnancies the stomach might migrate from its native position (11).

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