

Conservative Management of Jejunojejunal Edema Following

Roux-en-Y Gastric Bypass Surgery

Mrinalini Alla, MD¹; Jane Tian, MD¹; Manya Shapuri, MD²; Shubham Bhatia, MD¹; Camille Mai-Phuong Tran Quang, MD³; Martine A Louis, MD¹; Noman Khan, DO¹

¹Department of Bariatric Surgery, Flushing Hospital Medical Center, NY

²St. George's University School of Medicine, Grenada

³Ross University School of Medicine, Barbados



INTRODUCTION:

- Bariatric surgery is a safe and effective treatment for obesity. Roux-en-Y gastric bypass (RYGB), one of the procedures performed, achieves substantial weight loss and improvement of obesity-related comorbidities.
- Small bowel obstruction after RYGB is a recognized complication, reported in approximately 1.9–7.3% of patients. While small bowel obstruction due to internal hernias or adhesions is well documented, jejunojejunal edema remains an underreported cause of early postoperative small bowel obstruction.
- We present a case of jejunojejunal edema, exploring its clinical presentation, pathophysiology, diagnostic challenges, surgical considerations to minimize its occurrence and management.

CASE DESCRIPTION:

- A 45-year-old female with a past medical history of hypertension, asthma, obstructive sleep apnea, past surgical history of sleeve gastrectomy underwent a Robotic assisted laparoscopic conversion to Roux-en-Y Gastric Bypass with Hiatal Hernia repair. Her post-operative course was initially uncomplicated and discharged on post operative Day (POD) 1.
- The patient readmitted on POD 4 with two days of abdominal pain, nausea, vomiting, obstipation and constipation.
- On exam, tachycardia was noted with some poorly localized abdominal tenderness; laboratory workup only showed leukocytosis, computed tomography with oral contrast demonstrated proximal jejunal dilation, collapsed biliopancreatic limb, mesenteric edema with no clear signs of ischemia or volvulus with distal passage of contrast. (Fig1a)
- The patient received conservative management with bowel rest, intravenous fluids and administered 2 doses of 10mg dexamethasone 24 hours apart.
- The patient's symptoms resolved with return of bowel function and patient was discharged on POD7.

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Figure 1a: CTAP on POD4

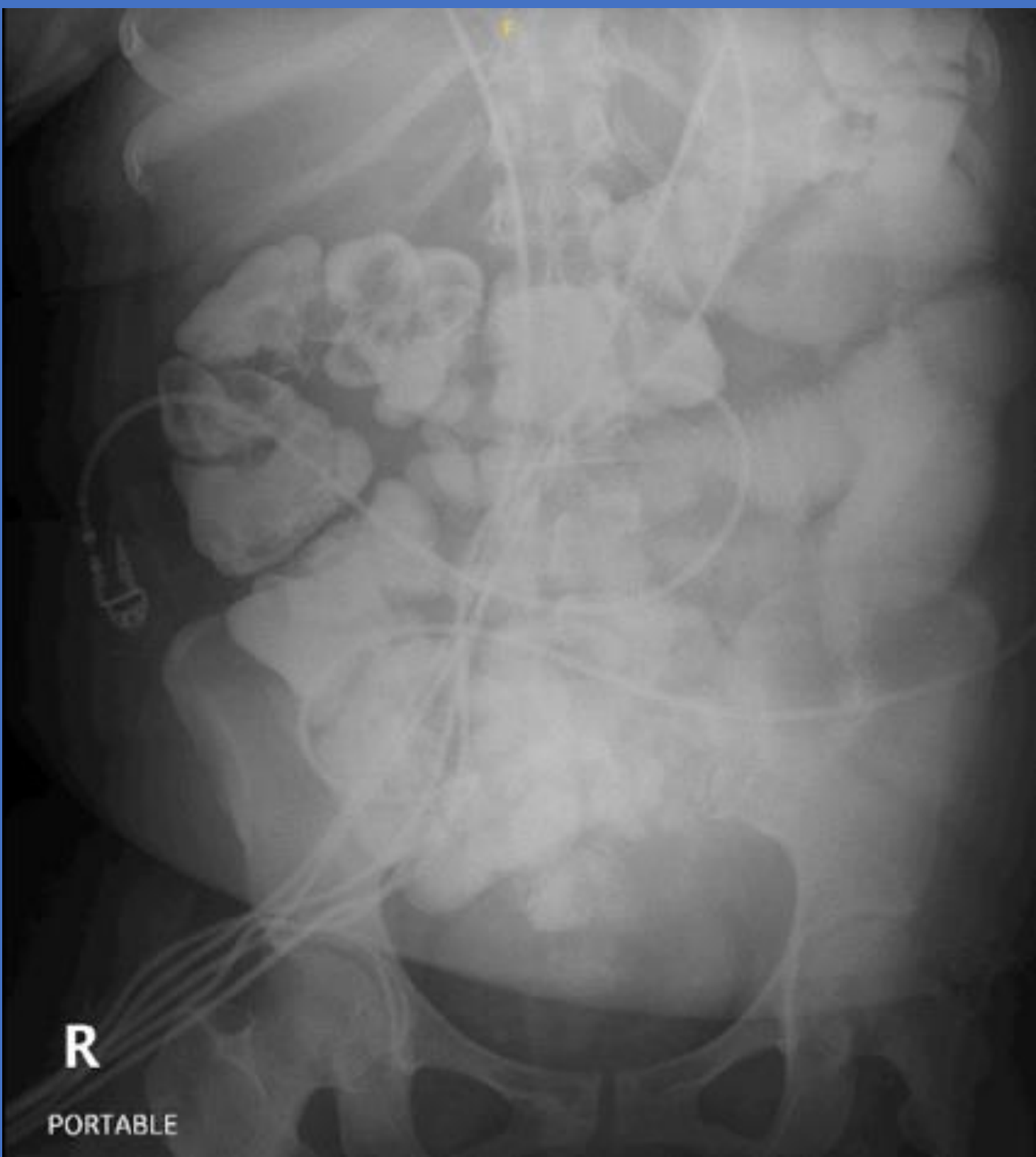


Figure 1b: Upper gastrointestinal series on POD4

DISCUSSION:

- Small bowel obstruction (SBO) following Roux-en-Y gastric bypass (RYGB) can occur at different stages.
- Early SBO typically occurs within 30 days postoperatively and can be attributed to technical issues such as kinking or acute angulation of the Roux limb, anastomotic narrowing, intraluminal obstruction from a blood clot at the anastomosis, or edema of the Jejuno-jejunal anastomosis causing transient luminal narrowing.
- Late SBO, on the other hand, is predominantly caused by internal herniation through mesenteric defects, through the transverse mesocolon defect, followed by adhesions and other rare complications such as intussusception and bezoars. Jejunojejunal (JJ) intussusception is a rare cause of late SBO occurring in 0.1% to 0.64% of patients, predominantly in females who have experienced significant weight loss.
- Jejunojejunal edema is a rare, underreported but significant complication following Roux-en-Y gastric bypass surgery. It is secondary to a transient inflammatory response leading to early postoperative partial SBO (Gabrielli, et al. 2021)
- Proper identification of JJ edema and differentiation from other causes are essential for optimizing management strategies and improving postoperative outcomes in RYGB patients.
- The clinical presentation of jejunojejunal edema often includes abdominal pain, nausea, vomiting, and tachycardia, which are nonspecific and mimic other complications such as internal hernias (Oor et al.). Imaging plays a critical role in diagnosis. Computed tomography with intravenous and oral contrast is the preferred imaging modality, revealing proximal bowel dilation, collapsed distal bowel loops, and mesenteric edema.
- In contrast to many other post-bypass obstructions that often necessitate prompt surgery, conservative management is the first-line strategy for jejunojejunal edema. Initial steps include bowel rest, intravenous hydration, and nasogastric decompression if needed to relieve distention. A key component is the use of anti-inflammatory therapy – most commonly systemic corticosteroids – to hasten resolution of the edema.

CONCLUSION:

Jejunojejunal edema is a rare but reversible complication of Roux-en-Y gastric bypass surgery, due to a transient inflammatory response. Emerging evidence suggests that most cases resolve without reoperation. Early recognition, conservative management, and meticulous surgical technique are key to optimizing patient outcomes.