
Clinical Communications: Adults

BOWEL GANGRENE FROM STRANGULATED PETERSEN'S SPACE HERNIA AFTER GASTRIC BYPASS

Jill E. Reiss, MD, FACS* and Vinod K. Garg, MD, FACS†

*Department of Surgery, Loma Linda University Medical Center, Loma Linda, California and †Department of Surgery, Pomona Valley Hospital Medical Center, Pomona, California

Corresponding Address: Jill E. Reiss, MD, FACS, Department of Surgery, Loma Linda University Medical Center, 11175 Campus Street, Coleman Pavilion, Room 21111, Loma Linda, CA 92350

Abstract—Background: Patients with internal herniation after Roux-en-Y gastric bypass might present with normal laboratory values, minimal physical examination findings, and nonspecific radiographic results, making early diagnosis difficult and resulting in catastrophic bowel necrosis. **Objective:** Our purpose is to increase awareness so physicians of all specialties caring for these patients have a heightened suspicion and low threshold to obtain early surgical consultation in bypass patients with unexplained abdominal pain. **Case Report:** A 36-year-old female had a delayed presentation of internal herniation 4 years after laparoscopic retrocolic Roux-en-Y gastric bypass for morbid obesity. Initially, she had unremarkable physical examination, laboratory results, and plain x-ray findings, which made diagnosis challenging. During emergent exploratory laparotomy, she was found to have a strangulated Petersen's space hernia with volvulus, necessitating extensive gastric, small bowel, and colonic resection. She was referred for small bowel transplantation and has survived more than 8 years. **Conclusions:** The occurrence of Petersen's hernias has increased with laparoscopic Roux-en-Y gastric bypass due to less postoperative adhesions. Whether days or several years after gastric bypass, patients with intermittent abdominal pain, nausea, or vomiting need to be carefully evaluated. These herald signs of internal herniation should prompt early surgical consultation. Pain out of proportion to physical examination often indicates need for urgent surgical intervention. Physicians need to be educated

about this potentially life-threatening complication so early diagnosis and treatment can avoid catastrophic bowel gangrene. © 2014 Elsevier Inc.

Keywords—Roux-en-Y gastric bypass; bowel obstruction; bariatric surgery; bowel transplant; bowel gangrene; Petersen's space; internal hernia; volvulus; morbid obesity

INTRODUCTION

As the obesity epidemic increases, more bariatric procedures are being performed and newer procedures are being introduced. Not all surgeons are familiar with these procedures because most are done at specialized institutions. More patients are presenting to their local emergency department or physician after bariatric surgery. Therefore, awareness of the possible complications is essential. Internal herniation with volvulus after laparoscopic retrocolic Roux-en-Y gastric bypass can be extremely difficult to diagnose.

CASE REPORT

In 2004, a 36-year-old female presented to the emergency department at a local community hospital with a chief complaint of severe epigastric pain persistent from the previous evening. After eating dinner, acute onset epigastric

Reprints will not be available from the authors.

pain with nausea and vomiting developed and she came to the emergency department the next morning. Her medical history was pertinent for obesity, hypertension, pyelonephritis, cholelithiasis, hypothyroidism, and smoking tobacco. Her surgical history included laparoscopic retrocolic Roux-en-Y gastric bypass 4 years earlier and laparoscopic cholecystectomy. She initially weighed 250 lb with a body mass index (BMI; calculated as kg/m^2) of 42. She had lost 75 lb since the gastric bypass and decreased her BMI to 29. The morning of presentation she was evaluated by the initial emergency physician and found to have normal vital signs and normal serum laboratory results. Physical examination revealed a soft, nontender, nondistended abdomen without rebound or guarding. Bowel sounds were normoactive. No costovertebral angle tenderness, abdominal masses, inguinal hernias, femoral hernias, or ventral hernias were present. She was discharged home after receiving some oral antacids.

That afternoon, she returned to the emergency department and was examined by another emergency physician and determined to have unremarkable vital signs and similarly negative abdominal physical examination. She was discharged home after a noncontrast computed tomography scan of abdomen and pelvis was reported as normal.

That evening, she had hematemesis and persistent pain. She was transported to the same hospital by ambulance. She was hypotensive at 90/60 mm Hg and tachycardic with a heart rate of 110–120 beats/min. Abdominal examination was soft, nondistended, with mild epigastric tenderness. Rectal examination showed yellow liquid stool, no gross blood, and no masses. She was admitted to the intensive care unit. That night, the gastroenterologist was consulted and performed an esophagogastroduodenoscopy that showed a Mallory-Weiss tear and patent gastrojejunal anastomosis without ulceration.

During the following day, she had progressive hemodynamic instability with blood pressure dropping to 60/35 mm Hg. Her heart rate was 120–140 beats/min. She was afebrile with respiratory rate of 20–30 breaths/min. As the consulting physicians continued to search for the source of shock, they treated her with i.v. fluids, pressors, and i.v. antibiotics. She was transfused 2 U packed red blood cells for hematocrit of 23%. Echocardiogram by the cardiologist showed ejection fraction of 54%. Her presumed diagnosis was sepsis. Her abdominal examination showed mild distention and moderate epigastric tenderness with hypoactive bowel sounds. Abdominal x-ray studies, including portable supine and lateral decubitus, showed nonspecific gas patterns without extraluminal air.

Overnight, progressive abdominal distention and multi-system organ failure developed. The following morning, her acute abdominal x-ray series showed bilateral pleural effusions and dilated small bowel loops with air fluid

levels. Abdominal and pelvic ultrasounds showed large amounts of peritoneal fluid and adynamic dilated fluid-filled loops of bowel.

Urgent surgical consultation was requested that morning and she was immediately evaluated. At that time, she was hypotensive at 90/50 mm Hg, tachycardic with heart rate 130–140 beats/min, intubated, and exhibiting multi-system organ failure. Physical examination findings included marked abdominal distention, rigid abdomen, cool mottled extremities, and no external hernias. Laboratory values revealed coagulopathy with international normalized ratio of 3, creatinine of 3.5 mg/dL, acidosis with pH of 7.189, total bilirubin of 2.6 mg/dL, elevated liver transaminases of 191–365 U/L, white blood cell count of 5.6 K/UL, and hemoglobin of 10.9 g/dL.

She was taken for emergent exploratory laparotomy for presumed bowel gangrene. She was found to have a Petersen's space hernia with volvulus causing catastrophic bowel necrosis (Figure 1). Small bowel and transverse colon were herniating through the defect, resulting in volvulus. Intraoperatively, the small bowel and colon were reduced and untwisted. The complete small bowel was gangrenous except the duodenum and a few inches of jejunum. The entire colon was dusky, but the rectum was viable. Initial surgery included small bowel resection from the proximal jejunum to the ileocecal junction, partial gastrectomy, and gastrostomy tube placement. Planned second-look exploration was done within 24 h to re-evaluate colonic ischemia and further gastric resection was necessary, leaving only a small

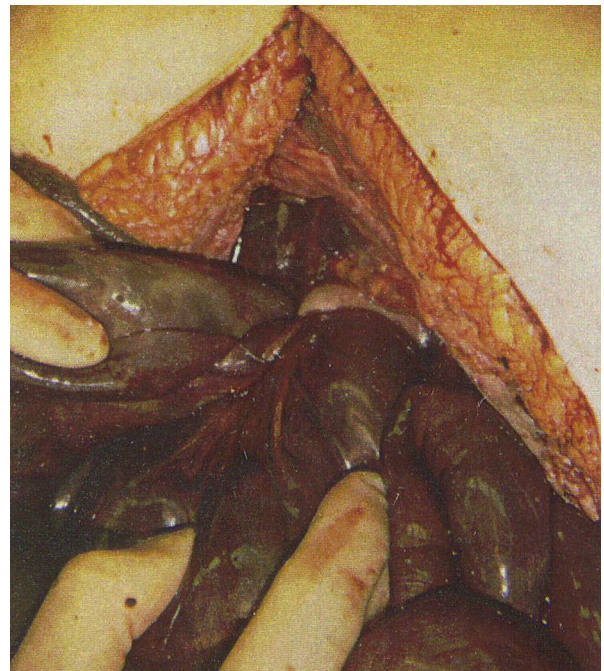


Figure 1. Petersen's hernia with volvulus.

Download English Version:

<https://daneshyari.com/en/article/3248033>

Download Persian Version:

<https://daneshyari.com/article/3248033>

[Daneshyari.com](https://daneshyari.com)