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Case Report

A Rare Form of Internal Hernia after Roux-En-Y Gastric Bypass

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Abstract

Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) is currently the second most popular weight loss surgery [1]. The laparoscopic approach induces less postoperative adhesions than the open one. It has long been associated with one of its late complications, which is the development of internal hernias (IH), with a reported incidence of 1-5%, and a prevalence that varies up to 7.5% in the literature [2-5].

Over the past years, the increased incidence of post-LRYGB small bowel obstruction (SBO) due to IH has become a significant concern since it can occur unexpectedly at any time post-surgery.

Case Report

A 35 years old female patient ten years after LRYGB for morbid obesity due to a BMI of 40 kg/m^2 suffered from chronic abdominal pain. She presented to the emergency room (ER) because of abdominal pain and vomiting. Initially, she had an unremarkable physical examination, laboratory results, and plain x-ray findings, which made diagnosis challenging. A computed tomography (CT) scan showed a distended Biliopancreatic limb (BPL) up to 54 mm with a transition point beside the JJ anastomosis and an abnormal course of the mesentery suspicious for an IH (Figure 1). The patient was taken urgently to the operating room for a diagnostic laparoscopy.

Figure 1: A computed tomography (CT) scan showed a distended Biliopancreatic limb (BPL) up to 54 mm with a transition point beside the JJ anastomosis and an abnormal course of the mesentery suspicious for an IH.

During emergent exploratory laparoscopy, she was found to have a strangulated Jejuno-Jenunostomy space hernia with volvulus. The jejunal mesenteric space at the level of the jejunojejunostomy (Figure 2). There was also twisting of biliopancreatic limb at the jejunojejunal anastomosis site (Figure 3). Treatment includes emergent exploration, either laparoscopically or open. The volvulus is reduced, adhesions are lysed, internal hernia is repaired, and bowel viability is assessed. If the bowel is ischemic, the patient will require bowel resection and occasionally revision of the jejunojejunal anastomosis.

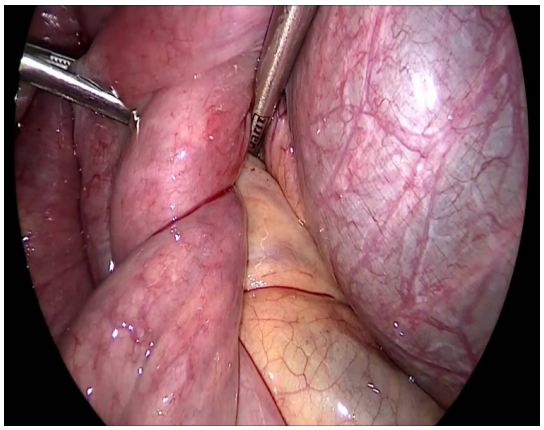

Figure 2: The jejunal mesenteric space at the level of the jejunojejunostomy.

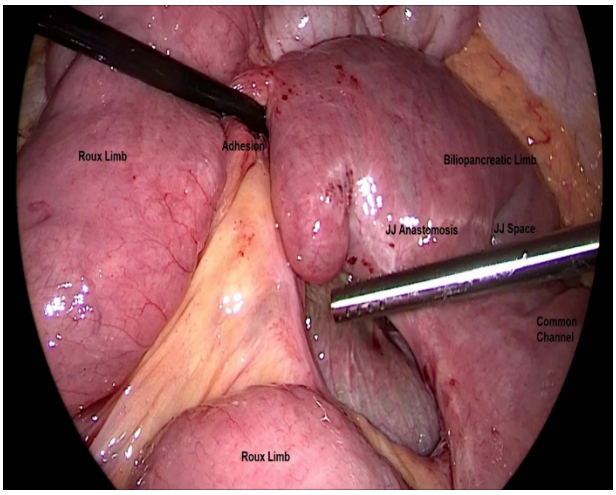

Figure 3: Twisting of biliopancreatic limb at the jejunojejunal anastomosis site.

Discussion

Most common sites of IH post LRYGB are through a transverse meso-colon defect followed by Petersen's hernia and Jejunojejunostomy (JJ) mesenteric space [5].

BPL obstruction is a challenging diagnosis as the symptoms are very nonspecific. Patients with BPL obstruction can present acutely or subacutely with acute intestinal obstruction or intermittent, crampy, vague, and sharp abdominal pain, usually unrelated to eating. SBO, due to internal hernia, is commonly a closed-loop obstruction, which has a higher perforation risk. Symptomatic patients should undergo a prompt CT scan, and once diagnosed by imaging, the obstruction is treated by urgent surgical exploration in order to reduce the hernia. Early diagnosis and treatment are essential in reducing the morbidity and mortality associated with this condition.

The internal hernia located between the jejunojejunostomy and the end of the biliopancreatic limb, directly between two jejunal limbs with no mesentery involved. Uncorrected Small bowel obstruction due to internal hernia could lead to bowel strangulation, which may necessitate extensive bowel resection and could result in short bowel syndrome.

This case report highlights the importance of prompt immediate intervention while presenting an unexpected site of internal hernia and BPL obstruction, emphasizes that even a very small opening between intestinal loops or in the mesentery can lead to the formation of an IH after LRYGB, with small windows that may even be even more dangerous because they hold a higher risk of incarceration [6].

Acute biliopancreatic limb obstruction has typical CT features. Given its high morbidity and rate of reoperation, it is useful to make this specific diagnosis instead of reporting the findings as postoperative small bowel obstruction.

BPL obstruction requires prompt decision for relaparoscopy. Timely intervention is necessary to prevent postoperative morbidity whether days or several years after gastric bypass, patients with intermittent abdominal pain, nausea, or vomiting need to be carefully evaluated with keeping the option for an IH high on the differential diagnosis scale.

The present case presents a rare IH after LRYGB, as well as a very rare form of bowel twisting. In these cases, urgent exploratory laparoscopy is recommended. Surgical closure of defect is the definitive treatment for these hernias with expectant excellent clinical outcomes.

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References

1. Welbourn R, Hollyman M, Kinsman R, et al. (2019) Bariatric Surgery Worldwide: Baseline Demographic Description and One-Year Outcomes from the Fourth IFSO Global Registry Report 2018. Obes Surg 29: 782-795.
2. Ianelli A, Facchiano E, Gugenheim J (2006) Internal hernia after laparoscopic Roux-en-Y gastric bypass for morbid obesity. Obes Surg 16: 1265-1271.
3. Higa K, Boone K, Arteaga González I, et al. (2007) Mesenteric closure in laparoscopic gastric bypass: surgical technique and literature review. Cir Esp 82: 77-88.
4. Nguyen NT, Goldman C, Rosenquist CJ, et al. (2001) Laparoscopic versus open gastric bypass: a randomized study of outcomes, quality of life, and costs. Ann Surg 234: 279.
5. Higa KD, Ho T, Boone KB (2003) Internal hernias after laparoscopic Roux-en-Y gastric bypass: incidence, treatment and prevention. Obes Surg 13: 350-354.
6. Paroz A, Calmes JM, Romy S, Giusti V, Suter M (2009) A new type of internal hernia after laparoscopic Roux-en-Y gastric bypass. Obes Surg 19: 527-530.