



Laparoscopic Management of Dilatation of Excluded Stomach After Roux-en-Y Gastric Bypass

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Abstract

Introduction Roux-en-Y gastric bypass (RYGB) is considered as the gold standard for surgical management of morbid obesity due to its good results on weight loss and correction of comorbidities related to obesity and its few complication rates. Here, we describe a present strategy for dealing with an unusual complication after RYGB, responsible for chronic pain, as a chronic dilatation of excluded stomach.

Methods The video shows our laparoscopic treatment of an excluded gastric fundus dilatation. A 21-year-old woman with history of RYGB was admitted in our center for recurrent abdominal pain. Many consultations have been performed before for the same reason and without explanation for this chronic abdominal pain.

Results We found that a dilatation of the excluded gastric fundus was responsible for recurrent abdominal pain and thus required revisional surgery. An abdominal computed tomography with oral contrast study showed an atypical dilatation of the excluded stomach without gastro-gastric fistula or others abnormal findings. Intra-operative exploration then revealed multiple adhesions. During surgery, released of the excluded stomach allow to confirm a dilatation of the excluded fundus due to error in stapling when performing the vertical part of the gastric pouch of the RYGB. We resected the excluded dilated gastric fundus. An uneventful post-operative course enabled rapid discharge (post-operative day 3).

Conclusion Dilatation of the excluded gastric pouch due to staple line misfiring during RYGB is a rare complication and can explain chronic abdominal pain. Laparoscopy can be useful to confirm the diagnosis and allow treatment using gastric resection in our case.

Keywords Roux-en-Y gastric bypass · Excluded stomach · Post-operative complications

Abbreviations

SG sleeve gastrectomy
RYGB Roux en Y gastric bypass

Introduction

The laparoscopic Roux-en-Y gastric bypass (RYGB) has been the gold standard for bariatric surgery, but currently, the

laparoscopic sleeve gastrectomy (SG) has been gaining popularity. Recent publications showed that both are comparable in terms of improvement of comorbidities and weight loss [1]. However, recent data suggest that RYGB might have more early and late complications than the SG [2, 3].

In the present case, we present a strategy for dealing with an unusual complication after RYGB, an excluded gastric fundus dilatation diagnosed in patient with chronic abdominal pain.

Material and Methods

A 21-year-old woman was admitted in our department for recurrent abdominal pain 1 year after RYGB. Abdominal pain was located on the epigastric and left upper quadrant regions, without vomiting and fever. Weight loss was satisfactory.

An abdominal computed tomography (CT) with oral contrast study showed an atypical dilatation of the excluded stomach (Fig. 1). No abdominal fluid collection or sign of internal hernia was described. An upper gastrointestinal endoscopy was

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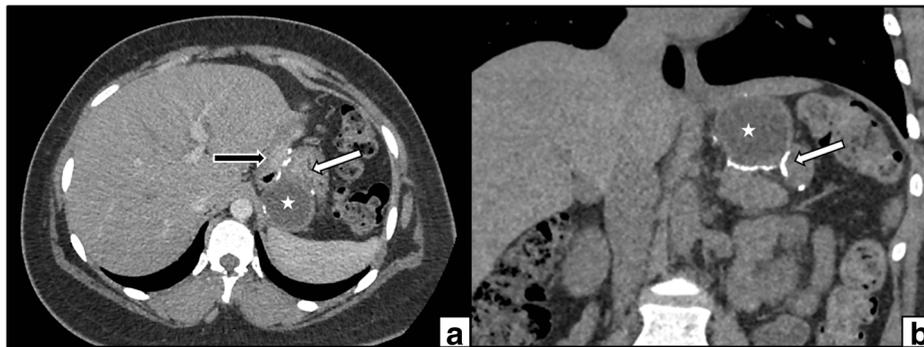


Fig. 1 Abdominal computed tomography scan of dilated excluded stomach after Roux-en-Y gastric bypass. **a** Axial view showing dilated excluded gastric pouch (white star) between excluded stomach (white

arrow) and gastric pouch of the gastro-jejunal anastomosis (black arrow). **b** Coronal view showing dilated excluded gastric pouch (white star) next to excluded stomach without dilatation (white arrow)

performed showing no sign of gastritis or ulcer and absence of gastro-gastric fistula. Also, an abdominal ultrasound found no sign of gallbladder disease. The patient was followed but faced with persistence of the symptomatology; another abdominal CT scan showed the same radiological findings as a dilatation of the excluded gastric fundus. We decided to propose a revisional surgery.

We performed an exploratory laparoscopy showing multiple adhesions. After release of adhesions, gastro-jejunal anastomosis did not show abnormality. Then to perform an exploration of the excluded gastric fundus, a complete dissection of the greater gastric curvature was performed, similarly than in SG. The posterior surface of the stomach was completely released, revealing some staples on the posterior surface of the fundus. Then a release of the left side of the non-excluded gastric pouch was performed after introducing a 34 French Bougie allowing guidance of the dissection. In some cases of hard adhesions, we performed stapling of the adhesions between the gastric pouch and the excluded stomach. After arriving on the excluded fundus, different staplers were seen and finally a dilatation of the excluded fundus was seen and related to error in stapling (Fig. 2). The analysis of the stapling showed abnormal oblique stapling explaining difficulties in emptying secretions of the excluded stomach. After complete release of the excluded gastric pouch dilatation, resection was performed using staplers. An intra-operative methylene blue test was performed intra-operatively showing absence of leakage. No abdominal drain was implemented. Check for absence of internal hernia was also performed.

Results

Refeeding was started on post-operative day 1 and discharge from hospital was performed on post-operative day 3. Pathological examination showed a gastric dilatation, presence of local inflammation with lymphocyte invasion, and absence of *Helicobacter pylori*. At 6-month follow-up, there was no more abdominal pain.

Conclusion

Dilatation of the excluded gastric pouch due to staple line misfiring during RYGB is an unusual cause of chronic abdominal pain after RYGB. Laparoscopy can be useful to confirm the diagnosis and allow treatment using gastric resection in our case.

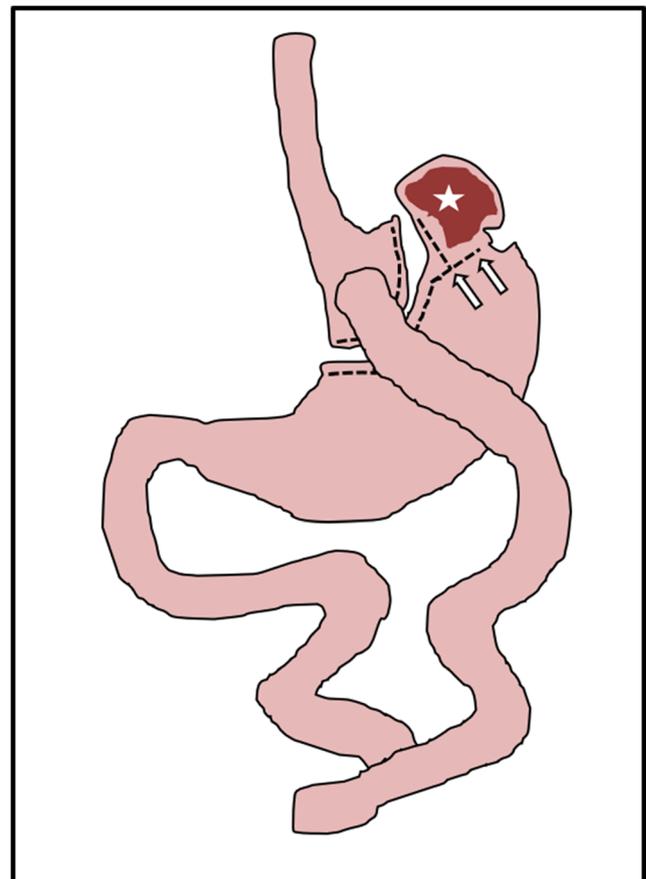


Fig. 2 Frontal pattern of dilated excluded gastric fundus (white star) related to staple misfiring, at the upper part of the excluded stomach (white arrow)

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained by all individual participants included in the study.

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