



Shortening and Plication of Entero-enterostomy for Intussusception in Roux-en-Y Gastric Bypass: Video Report

Midhat Abu Sneineh¹  · Bruno Dillemans¹

Received: 11 November 2020 / Revised: 30 December 2020 / Accepted: 30 December 2020
© The Author(s), under exclusive licence to Springer Science+Business Media, LLC part of Springer Nature 2021

Abstract

Laparoscopic Roux-en-Y gastric bypass (LRYGB) is considered by a large percentage of bariatric surgeons' the operation of choice for obesity surgery as reported by Melvin (J Gastrointest Surg. 4:398–400, 2004). It is considered a generally safe procedure with a low percentage of complications. One of these complications is small bowel obstruction which has different etiologies. A rare cause of intestinal obstruction is intussusception at the entero-enterostomy as reported by Arapis et al. (Surg Obes Relat Dis. 1:23–33, 2019) and Sneineh et al. (OBES SURG 30:846–850, 2020). The accurate incidence of intussusception after LRYGB is unknown but Simper et al. (Surg Obes Relat Dis. 4:77–83, 2008) found a 0.15% incidence in their study. Diagnosis of intussusception requires a high index of suspicion because neither physical examination nor imaging is sensitive. CT scan might identify the problem, but a negative CT scan image does not rule out intussusception. Treatment of intussusception varies according to the clinical picture of the patient at the presentation. These variations may include conservative treatment up to resection of the entero-enterostomy and do a re-anastomosis as discussed by Daellenbach et al. (OBES SURG 21:253–263, 2011). The video aims to present an alternative option for surgical management of intussusception of the entero-enterostomy following LRYGB which to our knowledge was not published before.

Keywords Bariatric surgery · Roux-en-Y gastric bypass · Small bowel intussusception · Gastric bypass · Gastrectomy

Methods

A 29-year-old female patient with past history of LRYGB 7 years ago, weight loss of 42 kg (BMI 44.9 to 27.7 kg/m²), presented to the emergency room at our hospital with vague pain at the left flank of the abdomen for 12 h. On physical examination, she was afebrile, hemodynamically stable, and the abdomen was soft, mildly distended with no tenderness. Her white cell count and C reactive protein were normal. On admission, a CT scan without contrast was done. Signs of intestinal invagination at the site of entero-enterostomy with dilated loops of small bowel with air-fluid levels were noticed (see video).

The patient was hospitalized and treated conservatively with IV fluids and fasting for 4 days with resolution of the symptoms, then discharged.

One month later, she presented again to the emergency room with vague abdominal pain and constipation not related to eating. We decided to do a laparoscopic exploration.

Results

At exploration there was retrograde invagination of the common limb to a dilated entero-enterostomy with no edema or signs of inflammation. There was no internal hernia at any mesenteric defect. We narrowed the anastomosis with a linear stapler device (length of the initial anastomosis was 60 mm). It should be noticed that care should be taken to place the stapler exactly over the old staple line to avoid any avascular parts of the small intestine. Then, we added alignment stitches between the common and biliopancreatic limb with non-absorbable sutures 3–0 (see video).

The patient was discharged on the first post-operative day, eating soft food with no additional problems. Follow-up was until 12 months with no complaints.

✉ Midhat Abu Sneineh
midhat_1987@hotmail.com

¹ Department of Abdominal Surgery, Bariatric Unit, AZ St-Jan Hospital, 8000 Bruges, Belgium

Conclusion

Laparoscopic shortening with plication of the entero-entrostomy is a valid alternative for the treatment of enteric intussusception after LRYGB with excellent results.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11695-020-05217-5>.

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 from all individual participants included in the study.

References

1. Melvin WS. Roux-en-Y gastric bypass is the operation of choice for bariatric surgery. *J Gastrointest Surg.* 2004 May-Jun;8(4):398–400; discussion 404–5. <https://doi.org/10.1016/j.gassur.2003.12.023>.
2. Arapis K, Macrina N, Kadouch D, Ribeiro Parenti L, Marmuse JP, Hansel B. Outcomes of Roux-en-Y gastric bypass versus sleeve gastrectomy in super-super-obese patients (BMI ≥ 60 kg/m²): 6-year follow-up at a single university. *Surg Obes Relat Dis.* 2019 15(1):23–33. doi: <https://doi.org/10.1016/j.soard.2018.09.487>. Epub 2018 Oct 11.
3. Sneineh MA, Harel L, Elnasra A, et al. Increased incidence of symptomatic cholelithiasis after bariatric Roux-En-Y gastric bypass and previous bariatric surgery: a single center experience. *Obes Surg.* 2020;30:846–50. <https://doi.org/10.1007/s11695-019-04366-6>.
4. Simper S, Eerzinger J, McKinlay R, et al. Retrograde (reverse) jejunal intussusception might not be such a rare problem: a single group's experience of 23 cases. *Surg Obes Relat Dis.* 2008;4:77–83.
5. Daellenbach L, Suter M. Jejunojejunal intussusception after Roux-en-Y gastric bypass: a review. *Obes Surg.* 2011;21:253–63. <https://doi.org/10.1007/s11695-010-0298-5>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.