Obesity Surgery (2019) 29:2305–2306
https://doi.org/10.1007/s11695-019-03874-9

LETTER TO EDITOR/LED REPLY

Comments on the Letter to the Editor "The Gastric Migration Crisis in Obesity Surgery"

Daniel M. Felsenreich[1] · Felix B. Langer[1] · Gerhard Prager[1]

Published online: 13 April 2019

First and foremost, we would like to congratulate the authors on their very interesting letter to the editor, which covers in detail intra-thoracic migration of the sleeve/pouch and reflux—crucial issues in bariatric surgery. As much as we agree with the authors on most points they have made, we would like to make a few additions.

The authors offer a detailed description of the mechanisms in sleeve gastrectomy (SG) patients that may cause intra-thoracic migration of the stomach (or hiatal hernia) and related reflux. We would like to add that intra-thoracic migration (ITM) is an issue especially in patients with weight regain due to the re-increase of intra-abdominal pressure, which pushes the sleeve up into the thorax. Of course, the sleeve itself is a high-pressure system due to the fact that the pylorus remains in the passage [1]. A refixation of the gastro-colic/gastro-splenic ligament to the sleeve's greater curvature might be one way to prevent ITM as it creates downward traction of the entire sleeve [2]. SADI-S and BPD-DS patients might not suffer from ITM as much, probably because fewer of them experience weight regain. However, this is an assumption based on short-term data; long-term studies on this subject have yet to be published [3].

In comparison, ITM is much less of an issue with Roux-en-Y gastric bypass (RYGB) and one-anastomosis gastric bypass (OAGB). This is mainly because first, unlike SG, there are no high-pressure systems and second, the gastro-jejunostomy creates permanent downward traction of the pouch. We do not agree with the authors on this point as we strongly believe that the downward traction does exist even in case of long pouches.

It should also be mentioned that not only ITM may be the cause of reflux but also a functional disorder of the motility of the distal esophagus and the lower esophageal sphincter (LES). This functional disorder may be caused by a denervation after visualization, preparation of the hiatal region during surgery or by the gastro-esophageal junction being compromised after gastric banding. Thus, it is crucial during surgery not to harm the vagal nerve. A dysfunctional LES also causes reflux in a quite small group of patients with RYGB, mostly as a revisional procedure, even though RYGB is known to be the most effective bariatric anti-reflux method [4]. A complete resection of the pouch in combination with an esophago-jejunostomy may be considered as ultima ratio for these patients. The Linx® ring and EndoStim® might be considered as experimental options as well [5, 6]. Therefore, the hiatus should be dissected free and closed by hiatoplasty in all revisional procedures on patients suffering from reflux [7].

Further, kinking the esophagus during hiatoplasty, if the distal esophagus is not mobilized enough, may be another reason for dysphagia and reflux. Hence, the distal esophagus should be circularly dissected free all the way up into the posterior mediastinum before starting the hiatoplasty.

The authors mention that OAGB may be considered an anti-reflux procedure. However, we do not recommend performing an OAGB on patients suffering from reflux because the pouch should be kept as "dry" as possible in these patients and a possible backflow of bile after OAGB has not been ruled out by studies with larger cohorts, yet [8, 9].

To conclude, we recommend preoperative endoscopy in all bariatric patients and intra-operative hiatoplasty in patients suffering from hiatal hernia [10]. If endoscopic data of the hiatus are inconclusive or inexistent, a visualization of the crura is advisable instead of a dissection of the hiatus.

References

1. Felsenreich DM, Ladinig LM, Beckerhinn P, et al. Update: 10 years of sleeve gastrectomy-the first 103 patients. Obes Surg. 2018;28:3586–94.
2. Filho AMM, Silva LB, Godoy ES, et al. Omentopexy in sleeve gastrectomy reduces early gastroesophageal reflux symptoms. Surg Laparosc Endosc Percutan Tech. 2018:1.

✉ Gerhard Prager
gerhard.prager@meduniwien.ac.at

[1] Department of Surgery, Division of General Surgery, Vienna Medical University, Währinger Guertel 18-20, 1090 Vienna, Austria

3. Zaveri H, Surve A, Cottam D, et al. Mid-term 4-year outcomes with single anastomosis duodenal-Ileal bypass with sleeve gastrectomy surgery at a single US center. Obes Surg. 2018;28(10):3062–72.
4. Dijkhorst PJ, Boerboom AB, Janssen IMC, et al. Failed sleeve gastrectomy: single anastomosis duodenoileal bypass or roux-en-Y gastric bypass? A multicenter cohort study. Obes Surg. 2018;28(12):3834–42.
5. Hawasli A, Phillips A, Tarboush M. Laparoscopic management of reflux after Roux-en-Y gastric bypass using the LINX system and repair of hiatal hernia: a case report. Surgery for obesity and related diseases : official journal of the American Society for Bariatric Surgery. 2016;12(5):e51–4.
6. Azagury D, Morton J. Surgical anti-reflux options beyond fundoplication. Curr Gastroenterol Rep. 2017;19(7):35.
7. Rayman S, Goldenshluger M, Goitein O, et al. Conversion for failed adjustable gastric banding warrants hiatal scrutiny for hiatal hernia. Surg Endosc. 2018;
8. Chiappetta S, Stier C, Scheffel O, et al. Mini/one anastomosis gastric bypass versus Roux-en-Y gastric bypass as a second step procedure after sleeve gastrectomy-a retrospective cohort study. Obes Surg. 2018;
9. Musella M, Susa A, Manno E, et al. Complications following the mini/one anastomosis gastric bypass (MGB/OAGB): a multi-institutional survey on 2678 patients with a mid-term (5 years) follow-up. Obes Surg. 2017;27(11):2956–67.
10. Wolter S, Dupree A, Miro J, et al. Upper gastrointestinal endoscopy prior to bariatric surgery-mandatory or expendable? An analysis of 801 cases. Obes Surg. 2017;27(8):1938–43.