

Letters to the editor

Late-term hiatal hernia after gastric bypass: an emerging problem. “What came first, the chicken or the egg?”

We read with great interest the study by Clapp et al. [1] on the late-term hiatal hernia (HH) finding after laparoscopic Roux-en-Y gastric bypass (LRYGB). When symptomatic, it needs to be addressed surgically and can usually be done through a minimally invasive approach. This study is welcomed because we strongly agree on giving importance to the complex interplay between gastroesophageal reflux disease (GERD) symptoms and HH, even in patients who underwent LRYGB.

LRYGB is the second most performed surgical procedure for morbid obesity worldwide [2]. LRYGB is usually considered the procedure of choice to treat patients with both severe obesity and GERD, and, thereafter, GERD symptoms improved. Nevertheless, some patients continue to have symptoms or develop de novo GERD after RYGB [3].

In this series including 7 cases of late-term HH after LRYGB the authors reported that 71% of patients presented GERD symptoms, but none of the patients had a HH diagnosed before surgery. However, the authors did not specify the preoperative diagnostic workup to identify HH and the criteria used for the intraoperative diagnosis of HH [1].

We have previously demonstrated that the classical diagnostic approach of HH based on upper gastrointestinal endoscopy and/or a barium swallow have some limitation and that a new technology, the high-resolution manometry, shows a 91% of sensitivity taking into account the intraoperative diagnosis of HH as the gold standard. Moreover, the combination of the highly recommended upper gastrointestinal endoscopy [4] together with high-resolution manometry reached a sensitivity of 100% in morbidly obese patients [5].

We strongly believe that an accurate preoperative HH diagnosis may influence the operative choices and the operating room planning. In fact, although the authors reported that the feasibility of repairing a significant HH at the time of bariatric operation is well-established, it prolongs the operative times. This could explain the low attitude to HHR during LRYGB revealed by the analysis of Metabolic and Bariatric Surgery Accreditation and Quality

Improvement Program database [6] cited by the authors. In 2007, our group have already published some preliminary results on patients with HH and GERD who underwent both laparoscopic adjustable gastric banding or LRYGB [7].

Twenty-six patients underwent LRYGB with concomitant posterior HHR. After a minimum of 12 months of follow-up a significant improvement of GERD symptoms was shown using a standardized questionnaire [8]. We concluded that the preoperative evaluation of HH plays a crucial role to neglect the presence of HH also in patients undergoing LRYGB and when present it should be repaired aiming to reduce the late HH recurrence after LRYGB.

This stimulating study by Clapp et al. [1] offers the opportunity to rethink on the real recurrence or new onset of HH and GERD after LRYGB and to underline some challenging issues to avoid them. For example, whether preoperative high-resolution manometry studies should be routinely performed before bariatric surgery and whether hiatus should always be closed during a RYGB in the presence of a hernia.

Then, it is time to plan further researches to study this emerging problem.

Rossella Palma, M.D.
*Department of Surgical Sciences
“Sapienza” University of Rome
Rome, Italy*

Luigi Angrisani, M.D.
*Department of Public Health
“Federico II” University of Naples
Naples, Italy*

Antonella Santonicola, M.D.
Francesca Fierro, M.D.
Paola Iovino, M.D.
*Gastrointestinal Unit, Department of Medicine, Surgery and
Dentistry
University of Salerno
Salerno, Italy*

References

- [1] Clapp B, Vo LU, Lodeiro C, et al. Late-term hiatal hernia after gastric bypass: an emerging problem. *Surg Obes Relat Dis* 2020;16(4):471–5.

- [2] Angrisani L, Santonicola A, Iovino P, et al. IFSO worldwide survey 2016: primary, endoluminal, and revisional procedures. *Obes Surg* 2018;28(12):3783–94.
- [3] Suter M. Gastroesophageal reflux disease, obesity, and Roux-en-Y gastric bypass: complex relationship—a narrative review. *Obes Surg* 2020;30(8):3178–87.
- [4] Brown WA, Johari Halim Shah Y, Balalis G, et al. IFSO position statement on the role of esophago-gastro-duodenal endoscopy prior to and after bariatric and metabolic surgery procedures. *Obes Surg* 2020;30(8):3135–53.
- [5] Santonicola A, Angrisani L, Vitiello A, et al. Hiatal hernia diagnosis prospectively assessed in obese patients before bariatric surgery: accuracy of high-resolution manometry taking intraoperative diagnosis as reference standard. *Surg Endosc* 2020;34(3):1150–6.
- [6] Docimo Jr S, Rahmana U, Bates A, Talamini M, Pryor A, Spaniolas K. Concomitant hiatal hernia repair is more common in laparoscopic sleeve gastrectomy than during laparoscopic Roux-en-Y gastric bypass: an analysis of 130,772 cases. *Obes Surg* 2019;29(2):744–6.
- [7] Angrisani L, Lorenzo M, Ciannella M et al. Banding or bypass? Choice of the procedure cannot be influenced by the presence of hiatus hernia and esophageal reflux. *Surgery for Obesity and Related Diseases*, 2007. Abstracts: Plenary Session 277–298.
- [8] Santonicola A, Siniscalchi M, Capone P, Gallotta S, Ciacci C, Iovino P. Prevalence of functional dyspepsia and its subgroups in patients with eating disorders. *World J Gastroenterol* 2012;18(32):4379–85.

<https://doi.org/10.1016/j.soard.2020.06.055>

Response to letter to editor: Late-term hiatal hernia after gastric bypass: an emerging problem

I would like to thank Palma et al. for their interest in our article, “Late-term hiatal hernia after gastric bypass: an emerging problem” [1]. They correctly point out that our series did not specifically include remarks on the preoperative status of the patients’ hiatus, specifically if there was a preexisting hiatal hernia (HH) or not. We did search the available records for preoperative imaging, but this proved impossible to find as our average time to presentation after the index Roux-en-Y gastric bypass was over 11 years. We were able to find the operative reports and none of the patients had a HH noted at the time of surgery. The index Roux-en-Y gastric bypass were performed by other surgeons than the current

authors and we can only assume there was no HH because it was not mentioned in the operative narrative. However, Palma et al. do make an important point regarding the preoperative evaluation of the hiatus before bariatric surgery. They suggest that upper gastrointestinal series combined with manometry has the highest sensitivity in detecting HH [2]. We agree with them, that preoperative diagnosis is important. However, I am not sure that high-resolution manometry is necessary before every operation. Even the utility of preoperative esophagogastroduodenoscopy is still hotly debated [3,4]. In a perfect world, it would be useful to have a complete evaluation of every patient to include; high-resolution manometry, upper gastrointestinal series, and esophagogastroduodenoscopy, but that may not be practicable in our current practice environment. I would suggest a careful history and physical can direct the surgeon to further workup, which may include any or all of those tests. I also feel that a careful examination of the hiatus during any metabolic and bariatric operation is necessary. Palma et al. have contributed on this issue previously and I am sure they will more add to the literature regarding this interesting long-term complication.

Benjamin Clapp, M.D.

Paul L Foster School of Medicine

Texas Tech University Health Sciences Center El Paso

El Paso, Texas

References

- [1] Clapp B, Loc-Uyen V, Lodeiro C, Harper B, Montelongo S, Lee I, Tyroch A. Late-term hiatal hernia after gastric bypass: an emerging problem. *Surg Obes Relat Dis* 2020;16(4):471–5.
- [2] Santonicola A, Angrisani L, Vitiello A, Tolone S, Trudgill NJ, Ciacci C, Iovino P. Hiatal hernia diagnosis prospectively assessed in obese patients before bariatric surgery: accuracy of high-resolution manometry taking intraoperative diagnosis as reference standard. *Surg Endosc* 2020;34(3):1150–6.
- [3] Sun W, Dang J, Switzer N, de Gara C, Birch D, Karmali S. The utility of routine esophagogastroduodenoscopy before laparoscopic Roux-en-Y gastric bypass. *Surg Obes Relat Dis* 2017;13(10):1717–22.
- [4] Schneider R, Lazaridis I, Kraljevic M, Beglinger C, Wolnerhanssen B, Peterli R. The impact of preoperative investigations on the management of bariatric patients; results of a cohort of more than 1200 cases. *Surg Obes Relat Dis* 2018;14(5):693–9.

<https://doi.org/10.1016/j.soard.2020.07.025>