Obesity Surgery (2018) 28:846–847
https://doi.org/10.1007/s11695-017-3071-1

LETTER TO EDITOR/LED REPLY

Endoscopic Septotomy for the Treatment of Sleeve Gastrectomy Fistula: Timing and Indications

Luigi Angrisani[1] · Ariola Hasani[2] · Antonella Santonicola[3] · Antonio Vitiello[2] · Paola Iovino[3] · Giovanni Galasso[1]

Published online: 20 December 2017

To the Editor,

We read with great interest the Letter to the Editor entitled "Endoscopic Abscess Septotomy for Management of Sleeve Gastrectomy Leaks" [1].

Gastric leak (GL) after bariatric surgery is one of most dreaded complications due to its associated high morbidity and mortality, and the treatment of leaks following sleeve gastrectomy (SG) represents indeed one of the most debated topic, also due to the steep increase of this procedure among the performed bariatric procedures [2]. No standard protocol for management of GL exists, and surgical revision is often unsuccessful and burdened with high post-operative complications [3]. Deployment of self-expanding metallic stents (SEMS) still is the most popular endoscopic approach to GL with several studies being published; however, the success rate is very variable and its role has been re-evaluated [4–6].

✉ Luigi Angrisani
luigiangrisani@chirurgiaobesita.it

Ariola Hasani
ariolahasani@gmail.com

Antonella Santonicola
antonellasantonicola83@gmail.com

Antonio Vitiello
antoniovitiello_@hotmail.it

Paola Iovino
piovino@unisa.it

Giovanni Galasso
giovgala2@gmail.com

[1] General and Endoscopic Surgery Unit, San Giovanni Bosco Hospital, Naples, Italy

[2] Department of Clinical Medicine and Surgery, University of Naples "Federico II", Naples, Italy

[3] Gastrointestinal Unit, Department of Medicine and Surgery, University of Salerno, Salerno, Italy

Donatelli suggests that rather than bypassing the leak with SEMS, the key to success is to accomplish complete internal drainage of any collection [3, 7]. They suggest an algorithm for the use of endoscopic internal drainage (EID) with or without enteral nutrition as first-line management of GL following SG, with good outcomes. Double-pigtail stents keep the leak orifice open favoring the passage of fluid content into the digestive lumen with progressive reduction in the collection size until it eventually becomes a virtual cavity. Meanwhile, a foreign body reaction in the edges of the leak is triggered by plastic stents promoting the re-epithelialization over the stent and the fistula closure, resulting in an all-in-one procedure without the need of further treatment [3, 7, 8].

The same principle is maintained by the technique proposed in this letter [1]. Septotomy entails endoscopic dissection of the septum that separates the sleeve lumen and the perigastric cavity, to equalize the pressure between the two cavities to allow drainage of the perigastric collection into the gastric lumen [9, 10].

However, we believe that a standardization of this technique is necessary, its indications should be accurately explained, and the timing of its application should be defined. Is this technique to be approached only when other options (SEMS, clips, glue, pig tails, etc.) fail? Or is it a second step of the EID with double pigtails? These are only some of the questions to which surgeons performing SG want to give an answer: what to do and when to do it, when we face a post-SG leak or fistula.

The definitions are as important as the concept itself: leak or fistula. As better reported by Souto-Rodriguez, leaks are defined as the exit of luminal contents due to a discontinuity of the tissue apposition at the surgical anastomosis, whereas fistulas are abnormal passage ways usually between two hollow viscera or communicating to the skin and they result from chronic healing of local inflammation caused by leaks [11]. The clinical classification of leaks/fistula of Rosenthal is

based on the time of presentation of symptoms after surgery: acute if within 7 days; early within 1–6 weeks; late within 6–12 weeks; chronic if > 12 weeks from surgery [12]. Should we consider and treat it as leak in the early post-operative period and as fistula when it has already become chronic?

Donatelli recommends EID approach with double pigtails even for acute and early fistula (within 6 weeks). Draining the cavity from inside proved efficient, easier, and more physiological than surgical or radiological drainage allowing avoidance of potentially long term external fistula. Mahadev reported the used of endoscopic septotomy only for chronic fistula (> 12 weeks). Can we affirm that septotomy is our last option with a fistula?

In conclusion, we strongly believe that the concept of an endoscopic internal drainage, obtained either by septotomy or the use of pig tails, is a great option in the management of post-SG fistula. However, although septotomy allows the internal drainage of the cavity, it should be performed at least 1 month after surgery, when a stable septum is formed. Because of this, a previous endoscopic, radiologic, or surgical drainage of the abscess may be necessary. Hence, even if the first-line therapy remains the drainage, septotomy represents a valid option for the treatment of organized collections or chronic fistulas. Further data and algorithms are needed to standardize the right timing and indications to guarantee to the patient the proper treatment of this dramatic complication.

Compliance with Ethical Standards

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

References

1. Guerron AD, Ortega CB, Portenier D. Endoscopic abscess septotomy for management of sleeve gastrectomy leak. Obes Surg. 2017;27(10):2672–4. https://doi.org/10.1007/s11695-017-2809-0.
2. Angrisani L, Santonicola A, Iovino P, et al. Bariatric surgery and endoluminal procedures: IFSO worldwide survey 2014. Obes Surg. 2017;27(9):2279–89. https://doi.org/10.1007/s11695-017-2666-x.
3. Donatelli G, Dumont JL, Cereatti F, et al. Treatment of leaks following sleeve gastrectomy by endoscopic internal drainage (EID). Obes Surg. 2015;25(7):1293–301. https://doi.org/10.1007/s11695-015-1675-x.
4. El Mourad H, Himpens J, Verhofstadt J. Stent treatment for fistula after obesity surgery: results in 47 consecutive patients. Surg Endosc. 2013;27(3):808–16. https://doi.org/10.1007/s00464-012-2517-8.
5. Puig CA, Waked TM, Baron TH, et al. The role of endoscopic stents in the management of chronic anastomotic and staple line leaks and chronic strictures after bariatric surgery. SOARD. 2014;10:613–9.
6. Christophorou D, Valats J, Funakoshi N, et al. Endoscopic treatment of fistula after sleeve gastrectomy: results of a multicenter retrospective study. Endoscopy. 2015;47(11):988–96. https://doi.org/10.1055/s-0034-1392262.
7. Donatelli G, Ferretti S, Vergeau BM, et al. Endoscopic internal drainage with enteral nutrition (EDEN) for treatment of leaks following sleeve gastrectomy. Obes Surg. 2014;24(8):1400–7. https://doi.org/10.1007/s11695-014-1298-7.
8. Donatelli G, Dumont JL, Dhumane P, et al. Double pigtail stent insertion for healing of leaks following Roux-en-Y gastric bypass. Our experience (with videos). Obes Surg. 2017;27(2):530–5. https://doi.org/10.1007/s11695-016-2465-9.
9. Campos JM, Ferreira FC, Teixeira AF, et al. Septotomy and balloon dilation to treat chronic leak after sleeve gastrectomy: technical principles. Obes Surg. 2016;26(8):1992–3. https://doi.org/10.1007/s11695-016-2256-3.
10. Mahadev S, Kumbhari V, Campos JM, et al. Endoscopic septotomy: an effective approach for internal drainage of sleeve gastrectomy-associated collections. Endoscopy. 2017;49(5):504–8. https://doi.org/10.1055/s-0042-122012.
11. Souto-Rodríguez R, Alvarez-Sánchez MV. Endoluminal solutions to bariatric surgery complications: a review with a focus on technical aspects and results. World J Gastrointest Endosc. 2017;9(3):105–26. https://doi.org/10.4253/wjge.v9.i3.105.
12. Rosenthal RJ, International Sleeve Gastrectomy Expert P, Diaz AA, et al. International Sleeve Gastrectomy Expert Panel Consensus Statement: best practice guidelines based on experience of > 12,000 cases. Surg Obes Relat Dis. 2012;8(1):8–19. https://doi.org/10.1016/j.soard.2011.10.019.