



“Banded Bypass”: The Way to Go?

Luigi Angrisani · Pier Paolo Cutolo · Giampaolo Formisano

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To the editor:

We read with great interest the paper by Moon et al. describing their experience with a novel technique of laparoscopic banded Roux-en-Y using a bovine pericardial patch (Vascugard, Synovis, St. Paul, MN, USA) to improve the results and prevent weight regain [1]. Although definitive data proving the benefit of banding vs unbanded standard Roux-en-Y gastric bypass are not available as yet [2], we share authors' view on the mechanism of action of pre-anastomotic ring. We experienced a similar technique on a smaller group of patients from December 2009, 11 primary case and one revision for weight regain (mean age, 40.5 years; mean preoperative weight, 119.6 kg; mean preoperative BMI, 44.6 kg/m²). Our technique for primary cases, originally presented during the World IFSO Congress 2010 in Long Beach [3], was slightly different. We start perigastric dissection 3 cm below the gastroesophageal junction to create a vertically constructed pouch, based on the lesser curvature of the stomach. Although we use a 60-mm linear stapler (Echelon Flex Endopath 60 mm blue cartridge, Ethicon Endo-Surgery, Cincinnati, OH), our horizontal gastric transection is just 40 mm. We generally use two stapler reloads to vertically complete the pouch and the Peristrip Dry (Synovis, St. Paul, MN, USA) to reinforce the last vertical firing up to the angle of His [4]. Antecolic antegastric circularly stapled gastrojejunal anastomosis is performed using a transorally inserted anvil (2.5 OrVil; Covidien, New Haven, CT) and a transabdominally introduced circular stapler. To reduce the candy cane effect, the risk of bleeding, and leaks, the service jejunotomy is also

vertically stapled with Peristrip Dry [5]. Both ends of the patch (Vascugard, 2×9 cm; Synovis, St. Paul, MN, USA) are sutured together using nonabsorbable monofilament which is more appropriately used on vascular tissue. The ring circumference is softly calibrated on the pouch diameter inserting a 40-Fr orogastric bougie. The pericardial patch is anchored 1–2 cm proximally to the gastrojejunostomy transfixing the patch to the Veritas reinforcement tissue of the last vertical staple line with an absorbable monofilament stitch (Fig. 1). Another seromuscular-anchoring suture is used on the lesser curvature of the stomach transfixing the Vascugard patch. We have performed a “reinforced banded Roux-en-Y gastric bypass” using pericardial patch to form a ring which was anchored proximally to the gastrojejunostomy. At a mean follow-up of 24 months (range 12–36), patients showed a mean percentage of excess weight loss and a mean body mass index of 69.34 %±6.38 and 29.±2.34 kg/m², respectively. Neither early nor late postoperative complications were observed. No patient was readmitted or reoperated due to pericardial patch ring-related complications or gastric outlet obstruction symptoms.

Moon et al. in their manuscript do not specify if they have used 45- or 60-mm linear staplers which are most currently used. If they have used a 60-mm linear stapler, it is difficult to imagine that their pouch has an estimated volume of 15–30 ml, especially considering that they report that “staples were fired five times on average, one transverse and four vertical. One or two additional vertical firings could have been applied”. The size of the linear-stapled gastrojejunostomy was not also clearly reported. The point we are trying to make is that our assumption that “banding the pouch empower the efficacy of the operation” is based on the concept that both the pouch volume and the anastomotic size, in principle, have to be small.

Regarding the problem of ring fixation, we preferred to anchor the pericardial ring by sutures since we were not

L. Angrisani (✉) · P. P. Cutolo · G. Formisano
General and Endoscopic Surgery Unit, S. Giovanni Bosco
Hospital, Center of Naples, Via S. Lucia 143,
80121 Napoli, Italy
e-mail: luigiangrisani@chirurgiaobesita.it



Fig. 1 The pericardial patch is anchored to the gastrojejunostomy transfixing the patch to the staple line Veritas reinforcement tissue with a polypropylene stitch

aware of the use of this material on the human hollow viscera, and we could not predict its reaction. This aspect is still controversial in the technique of adjustable silicone gastric banding where band dislocation has been commonly encountered over the last 20 years. To prevent the risk of “erosion” (intra-gastric migration), Moon and co-workers chose the Vascugard tissue because of the experimental study on rat abdominal wall which reported that bovine pericardium patch acts as scaffold for transformation into living tissue without clinical complications [6].

Finally, we congratulate with the Orlando team for their outstanding series and their excellent short-term results which, as they mentioned, need to be confirmed on the

long-term follow-up (5–10 years). It is always a pleasure to find out that in different parts of the world, independent teams made a similar choice to increase the efficacy of the operation trying to avoid the traditional risk of ring erosion. Nevertheless, after millions of bypass performed around the world, it is quite clear that each of us may be doing a different operation as it is perhaps the case today.

Conflict of interest Authors have no conflict of interest to disclose.

References

1. Moon R, Teixeira A, Jawad MA. Pericardial patch ring Roux-en-Y gastric bypass: a preliminary report. *Obes Surg.* 2013;23(4):480–5.
2. Zarate X, Arceo-Olaiz R, Montalvo Hernandez J, et al. Long-term results of a randomized trial comparing banded versus standard laparoscopic Roux-en-Y gastric bypass. *Surg Obes Relat Dis.* 2012. doi:10.1016/j.soard.2012.09.009.
3. Angrisani L. “Roux en Y banded gastric bypass with bovine collagen matrix” presented at “special invited video series: difficult, uncommon and complex cases” in September 6, 2010, during Long Beach 2010 IFSO 15th Congress.
4. Shikora SA, Kim JJ, Tarnoff ME. Reinforcing gastric staple-lines with bovine pericardial strips may decrease the likelihood of gastric leak after laparoscopic Roux-en-Y gastric bypass. *Obes Surg.* 2003;13(1):37–44.
5. Angrisani L, Lorenzo M, Borrelli V, et al. The use of bovine pericardial strips on linear stapler to reduce extraluminal bleeding during laparoscopic gastric bypass: prospective randomized clinical trial. *Obes Surg.* 2004;14(9):1198–202.
6. Hafeez YM, Zuki AB, Loqman MY, et al. Glycerol preserved bovine pericardium for abdominal wall reconstruction: experimental study in rat model. *Med J Malays.* 2004;59(B):117–8.