



Laparoscopic Gastric Sleeve, Subtotal Antrectomy and Omentoplasty

Aniceto Baltasar · Rafael Bou · Marcelo Bengochea · Carlos Serra · Nieves Pérez

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Abstract Sleeve-forming gastrectomy (SFG) is the operation to make a gastric sleeve (GS). The video presents the subtotal removal of the antrum and the use of sliding self-locking stitch and Aberdeen knots as suture reinforcement with omentoplasty of the GS staple line with the aim of decreasing bleeding and leaks.

Keywords Laparoscopic gastric sleeve · Subtotal antrectomy · Omental patch · Staple-line suture

Purpose Controversial features related to SFG are (1) sleeve size and volume, (2) prevention of esophageal gastric junction (EGJ) leaks and (3) size of the antrum. We have used subtotal antrectomy in more than 1350 isolated GS or duodenal switch and reported [1, 2] suturing the staple line to reduce leaks.

Technique Six ports lap ports are used. A silk suture is passed around the round ligament to lift the liver. Gastric devascularization reaches the EGJ proximally and 2 cm distal to the pylorus to allow its full mobility.

A 12-mm boogie is placed along the lesser curvature. The stomach is divided starting 1 cm proximal to the pylorus and up to the EGJ with 6-cm long blue cartridges, and 85 % of the stomach is removed (Fig. 1). The GS diameter is smaller than the esophageal lumen (Fig. 2).

The staple-line suture includes the greater omentum and both gastric walls with continuous Surgipro 2/0 suture and C-22 needle. A Lembert-type suture starts with a sliding self-locking first stitch and ends with an Aberdeen knot [3, 4].

Leak test is done, the stomach is removed, and the fascia opening is closed with Maxon double suture.

The advantages are the following: (1) reduce the GS volumes by the antrectomy, (2) prevent bleeding and leaks, (3) the “omental patch” covers the staple line if a leak occurs, and (4) prevention the GS rotation.

Results Mean OR time is 54min (42–146 range). One leak occurred in 163 cases after the omental patch technique. Mean %EBMIL is 76 % (64–121 %) at 1 year.

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A. Baltasar (✉) · R. Bou · M. Bengochea · C. Serra · N. Pérez
San Jorge Clinic, Cid 61, 03803 Alcoy, Spain
e-mail: a.baltasar@aecirujanos.es

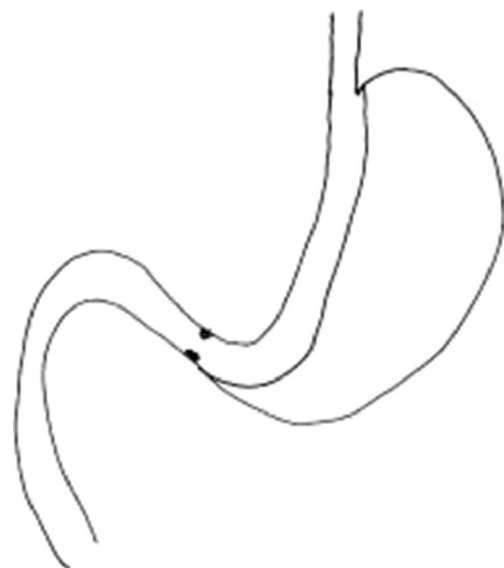


Fig. 1 Subtotal antrectomy

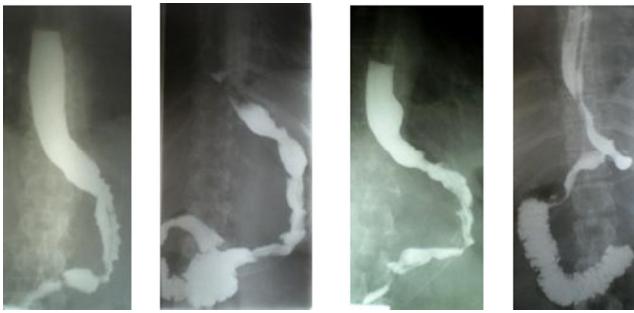


Fig. 2 X-rays studies on four different gastric sleeves

Conclusions (a) The omental patch on the suture line is cheaper than any other reinforcement, and it may decrease leak and bleeding rates and (b) a very narrow tube covered with the omentum plus the subtotal removal of the

antrum decreases gastric volume, and weight losses are excellent.

References

1. Baltasar A. Modified vertical banded gastroplasty. Technique with vertical division and serosal patch. *Acta Chir Scand.* 1989;155:107–12.
2. Hess DS, Hess DW. Biliopancreatic diversion with a duodenal switch. *Obes Surg.* 1998;8:267–82.
3. Stott PM, Ripley LG, Lavelle MA. The ultimate Aberdeen knot. *Ann R Coll Surg Engl.* 2007;89:713–7. doi:10.1308/003588407X205468.
4. Serra C, Pérez N, Bou R, et al. Sliding self-locking first stitch and Aberdeen knot in suture reinforcement with omentoplasty of the laparoscopic gastric sleeve staple line. *Obes Surg.* 2014. doi:10.1007/s11695-014-1352-5.