Laparoscopic re-sleeve gastrectomy for weight regain after modified laparoscopic sleeve gastrectomy: first case report and surgery in South America

Citation
PIROLLA, Eduardo Henrique, Felipe Piccarone Gonçalves RIBEIRO, and Fernanda Junqueira Cesar PIROLLA. 2016. "Laparoscopic re-sleeve gastrectomy for weight regain after modified laparoscopic sleeve gastrectomy: first case report and surgery in South America." Arquivos Brasileiros de Cirurgia Digestiva : ABCD 29 (Suppl 1): 135-136. doi:10.1590/0102-6720201600S10033. http://dx.doi.org/10.1590/0102-6720201600S10033.

Published Version
doi:10.1590/0102-6720201600S10033

Permanent link
http://nrs.harvard.edu/urn-3:HUL.InstRepos:29408237

Terms of Use
This article was downloaded from Harvard University’s DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA

Share Your Story
The Harvard community has made this article openly available. Please share how this access benefits you. Submit a story.

Accessibility
and was fired on the NG tube while creating the sleeve (Figure 2). But the most important part was to check, how the NG tube reached the stomach during the stapling.

We have a protocol of inserting a NG tube at the time of induction of anaesthesia to decompress the stomach which is taken out completely after all the ports are inserted and check laparoscopy done. Unfortunately on that day the anaesthetist had withdrawn the NG tube partially and kept it hanging in the oesophagus for a probable later use. When he pushed the gastric calibration tube before firing the staplers, the larger size gastric calibration tube dragged the NG tube into the stomach. Unknowingly we concentrated on the larger gastric tube and fired over the NG tube only to see this unusual complication.

How to prevent? Is NG tube necessary?

Prevention of such unusual complication is of paramount importance; hence awareness among surgeons that the NG tube can be severed without any pressure by the modern day stapler makes it even more necessary for its careful application during the procedure. The absolute answer to it would be to completely taking out the NG tube before inserting the calibration tube and all leak tests to be done with the calibration tube itself. Further the role and necessity of the NG tube before the procedure to achieve gastric decompression and prevention of leak needs to be evaluated.

How to recover from such happening?

These complications, though rare, can happen with any surgical team. As its rare, definite recovery protocols cannot be compared, however without fail, as discussed, prevention is always better proposition than recovery. In our case we think that the in situ gastric calibration tube which we had inserted knowing that the NG tube has been stapled acted as a stent and helped us in maintaining the sleeve, facilitating detaching the NG tube initially or preventing any injury to the nearby otherwise folded gastric mucosa and later during suturing of the created rent preventing narrowing at the site.

REFERENCES

1. Li JF, Lai DD, Ni B, Sun KX. Comparison of laparoscopic Roux-en-Y gastric bypass with laparoscopic sleeve gastrectomy for morbid obesity or type 2 diabetes mellitus: a meta-analysis of randomized controlled trials. Can J Surg. 2013 Dec;56(6):E158-64.
2. Rossetti G, Fei L, Docimo L, et al. Is Nasogastric Decompression Useful in Prevention of Leaks After Laparoscopic Sleeve Gastrectomy? A Randomized Trial. J Invest Surg. 2014 Aug;27(4):234-9.
3. Helmiö M, Victorzon M, Ovaska J et al. Sleevepap: a randomized prospective multicentre study comparing laparoscopic sleeve gastrectomy and gastric bypass in the treatment of morbid obesity. Preliminary results. Surg Endosc. 2012 Sep;26(9):2521-6.
4. Péquignot A, Dhahria A, Mensah E P, Verhaeghe R, Badaoui C, Sabbagh J-M, Regimbeau J-M. Stapling and Section of the Nasogastric Tube during Sleeve Gastrectomy: How to Prevent and Recover? Case Rep Gastroenterol. 2011;5(2):350-4.

INTRODUCTION

Modified laparoscopic sleeve gastrectomy (MLSG) is a great option to control diabetes mellitus type II, obesity and other co-morbidities. However, a common challenge of bariatric surgeries is weight regain in the long term.

Re-sleeve gastrectomy started a few years ago and is suggested to be a feasible option to manage these situations. In Latin America there is no case reported of re-sleeve gastrectomy after MLSG at now.

Therefore we present a case report of an individual submitted to re-sleeve gastrectomy after weight regain after seven years of MLSG.

CASE REPORT

MLSG (Figure 1) was performed in 2009. It basically consists in the removal of part of the gastric fundus and body of the stomach up to one inch from the pylorus vein, reducing the production of ghrelin*. In the following eight months after surgery, patient moved from BMI of 47 to 27.5. As a result he got his diabetes and metabolic syndrome controlled. Seven
years later returned referring the capacity of eating a larger volume and weight regain. His new BMI was 34.5. Given this clinical scenario were requested abdominal ultrasound, oral contrasted esophagus, stomach and duodenum and upper gastrointestinal endoscopy (Figure 1A).

Laparoscopic cholecystectomy with cholangiography was performed and also a partial gastric fundus re-sleeve (Figure 1B) was executed using articulated linear stapler and load-blue clips and reinforcement over suture with polidioxanone 3-0. Surgery obtain great results and without any intraoperative and postoperative complications. Patient stayed in hospital for 48 h. After six months of the procedure he had no complication, 12 kg weight loss and stopped all medications. He presented a change in BMI=6%, excess BMI loss (%EBMIL) of 84.21% and percent of total weight loss (%TWL) of 12.37%.

DISCUSSION

Literature present few publications describing re-sleeve gastrectomy. None of them in the Latin-America and none reporting MLSG as the primary bariatric procedure.

In 2006, Baltasar A, et al. reported two patients that were submitted to laparoscopic sleeve gastrectomy and when they regained weight, laparoscopic re-sleeve gastrectomy and duodenal switch were performed and reduced patients BMI after 3-4 months1. However, duodenal switch is a best indication for a super-super-obesity and a very malabsorptive technique. Re-sleeve is a good way to approach cases which patient’s need to loss the great part of weight which re-gained without other problems.

In 2009, Iannelli A, et al. performed a feasibility study of revision of laparoscopic sleeve gastrectomy. They recruited 13 patients with weight regain or insufficient weight loss. They followed their patients in the 1st, 6th and 12th months after revision in laparoscopic sleeve gastrectomy. Before surgery the mean BMI was 44.6 kg/m²; one month after surgery the mean BMI was 32.3 kg/m²; six months after surgery the mean BMI was 32 kg/m² and 12 months mean BMI was 27.5 kg/m². They concluded that for one year after revision of laparoscopic sleeve gastrectomy the procedure was safe and effective1.

Rebibo L et al. compared repeat sleeve gastrectomy with primary sleeve gastrectomy. They found that repeated sleeve gastrectomy can generate similar weight loss then primary sleeve, but can be associated with an increased risk of complications, such as gastric fistula2.

In 2014 Cesana G et al. reported their results showing 201 patients that were submitted to re-sleeve gastrectomy. They reported no intra and postoperative complications and also a reduction of antihypertensive and hypoglicemic drugs in patients with diabetes and hypertension after re-sleeve procedure3.

In short term safety, our results are consistent with literature since no pre or postoperative complication occurred. Our results are also similar to Cesana according to the reduction of the number of hypoglicemic agents. We must continue following this patient to check if results are consistent in middle and long term.

Our main limitation was our sample size of only one patient. To have more solid results larger studies are necessary.

REFERENCES

1. Baltasar A, Serra C, Pérez N, Bou R, Bengoechea M. Re-sleeve gastrectomy. Obes Surg. 2006 Nov;16(11):1535-8.
2. Cesana G, Uccelli M, Ciccarese F, Carriero D, Castello G, Olmi S. Laparoscopicicre-sleeve gastrectomy as a treatment of weight regain after sleeve gastrectomy. World J Gastrointest Surg. 2014 Jun;27(6):101-6.
3. Iannelli A, Schneck AS, Noel P, Ben Amor I, Krawczykowski D, Gugenheim J. Re-sleeve gastrectomy for failed laparoscopic sleeve gastrectomy: a feasibility study. Obes Surg. 2011 Jul;21(7):832-5.
4. Pirolla EH, Jureidini R, Barbosa ML, Ishikawa LC, Camargo PR. A modified laparoscopic sleeve gastrectomy for the treatment of diabetes mellitus type 2 and metabolic syndrome in obesity. Am J Surg. 2012 Jun;203(6):785-92.
5. Rebibo L, Fuks D, Verhaeghe P, Dегuines JB, Dhahri A, Remigeau JM. Repeat sleeve gastrectomy compared with primary sleeve gastrectomy: a single-center, matched case study. Obes Surg. 2012 Dec;22(12):1909-15.

LETTER TO THE EDITOR

GASTRIC RESERVOIR NECROSIS POST GASTRO-JEJUNAL BYPASS. THE IMPORTANCE OF CLINICAL EVALUATION IN THE DECISION MAKING PROGRESS: CASE REPORT

Necrose do reservatório gástrico após bypass gastrojejunal. A importância da avaliação clínica no progresso tomada de decisão: relato do caso

Manuel ACEVES Avalos1, Erik Ivan BARRAGÁN Veloz1, Humberto ARENAS Márquez1, Raúl PÉREZ Gomez1, Arturo MARTINEZ Medrano1, Eduardo Daniel ACEVES Velazquez2, Enrique VARGAS Maldonado1, Edgar CASTILLO Salas1

From the 1Obesidad y Laparoscopia Avanzada (OLA), Hospital Puerta de Hierro Sur, Guadalajara, Jalisco, México and 2Internal Medicine, Hospital San José Tec de Monterrey, Monterrey, Nuevo León, Mexico

HEADINGS - Roux-en-Y gastric bypass. Necrosis gastric pouch. Esophagojugal anastomosis. DESCRIPTORES: Bypass gástrico em Y-de-Roux. Necrose bolsa gástrica. Anastomose esofagojejunal.

![Image](https://example.com/image.jpg)

FIGURE 1 - A) Contrast esophagus, stomach and duodenum demonstrating moderate fundus dilatation; B) surgical specimen of re-sleeve (12 cm of gastric fundus)