

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 Unfortunately on that day the anaesthetist had withdrawn the NG tube partially and kept it hanging in the oesophagus for a probable later use.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<sup>4</sup>.

#### 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.

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Letter to the Editor

## LAPAROSCOPIC RE-SLEEVE GASTRECTOMY FOR WEIGHT REGAIN AFTER MODIFIED LAPAROSCOPIC SLEEVE GASTRECTOMY: FIRST CASE REPORT AND SURGERY IN SOUTH AMERICA

*Re-gastrectomia vertical laparoscópica para ganho de peso posteriormente à gastrectomia vertical laparoscópica modificada: primeiro relato de caso e cirurgia na América Latina*

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**HEADINGS:** Gastrectomy. Weight gain.

**DESCRITORES:** Gastrectomia. Ganho de Peso.

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## 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.

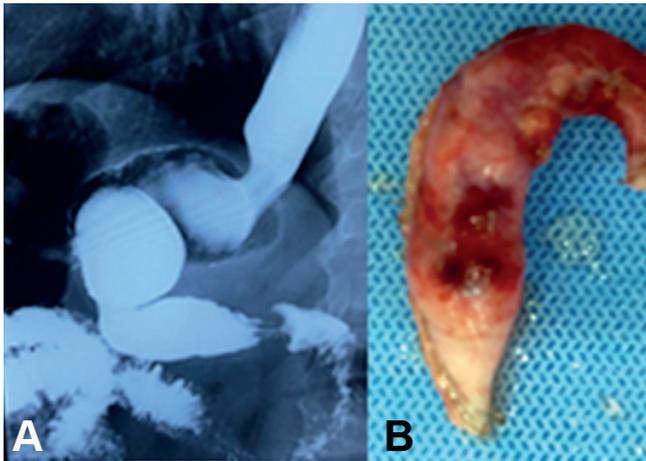
Therefore we present a case report of an individual submitted to re-sleeve gastrectomy after weight regain after seven years of MLSG.

## CASE REPORT

LSF, 48 year old caucasian, male, Brazilian went to private practice in São Paulo, in 2009, presenting the following conditions: severe obesity with BMI of 47, type II diabetes mellitus, hepatic steatosis and hypertension. Therefore, he had a metabolic syndrome and a severe obesity. He was submitted to the following exams: peptide C (2.86), anti-GAD antibody and anti-insulin antibody negative and fasting glucose (285 mg/dl) with Januvia and Glifage usage.

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<sup>4</sup>. 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).



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

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 polydioxanone 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=8%, 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 months<sup>1</sup>. 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 1<sup>st</sup>, 6<sup>th</sup> and 12<sup>th</sup> months after revision in laparoscopic sleeve gastrectomy. Before surgery the mean BMI was 44.6 kg/m<sup>2</sup>; one month after surgery the mean BMI was 32.3 kg/m<sup>2</sup>; six months after surgery the mean BMI was 32 kg/m<sup>2</sup> and 12 months mean BMI was 27.5 kg/m<sup>2</sup>. They concluded that for one year after revision of laparoscopic sleeve gastrectomy the procedure was safe and effective<sup>3</sup>.

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 fistula<sup>5</sup>.

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 hypoglycemic drugs in patients with diabetes and hypertension after re-sleeve procedure<sup>2</sup>.

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 hypoglycemic 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.

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## 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*

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**DESCRITORES:** Bypass gástrico em Y-de-Roux. Necrose bolsa gástrica. Anastomose esofagojejunal.

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