

Short- and medium-term outcomes of laparoscopic sleeve gastrectomy: a single center experience*

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SUMMARY: Short- and medium-term outcomes of laparoscopic sleeve gastrectomy: a single center experience.

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There are different surgical techniques adopted to treat morbid

obesity. The objective of this study is to report surgical results after 20 laparoscopic sleeve gastrectomy (LSG) cases treated for morbid obesity during a 2-year follow-up and verify the effectiveness of LSG in term of Excess Weight Loss (EWL) as compared to laparoscopic adjustable gastric banding (LAGB).

KEY WORDS: Morbid obesity - Laparoscopic Sleeve Gastrectomy (LSG) - Excess Weight Loss (EWL).

Introduction

There are different surgical techniques adopted to treat morbid obesity; the most popular are Laparoscopic adjustable gastric banding (LAGB), Laparoscopic Roux-en-Y gastric bypass (LRYGB) and Laparoscopic sleeve gastrectomy (LSG) (1). The objective of this study is to report surgical result after 20 LSG cases treated for morbid obesity during a 2-year follow-up and verify the effectiveness of LSG in term of Excess Weight Loss (EWL) as compared to LAGB (2).

Surgical technique

LSG is now performed by standardized surgical technique. This consists of creating a gastric tube with linear staplers against a calibrating bougie of 38 Fr that starts 6 cm from the pyloric valve running to the His angle. Floseal® was applied in cases of suture line bleeding. Overlock of the suture line was not performed. A leak-test with methylene blue demonstrated the integrity of the gastric tube. On the fifth post-operative day is performed

radiological control with Gastrografin® (Fig. 1). Nasogastric tube was removed on third post-operative day.

Materials and methods

Data were obtained by reviewing the national database of the Italian Society of Obesity Surgery and Metabolic Diseases (SICOB) where our patients were registered, that identified all patients who underwent LSG in our institute from January 2010 to December 2012. Patients were selected for LSG according to the 1991 US National Institutes of Health guidelines. Patients were evaluated by a specialist team including a nutritionist, endocrinologist, pulmonologist, psychiatrist, anesthetist and bariatric surgeon. Patients with a BMI > 55 were treated primarily with an intra-gastric balloon and then underwent LSG.

Results

Twenty patients underwent LSG. There were 10 women (50%) and 10 men (50%). Preoperative age and BMI were 42,05 years (range 25-64) and 49,39 (range 39,08-63,51) Kg/m² respectively. The most common comorbidities were diabetes type II, hepatic steatosis, hypertension, OSAS, arthropathy (Table 1). Hospital stay was 11,62 (7-32) days. No mortality was reported during follow-up. Early complications occurred in 2 pa-

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Fig. 1 - Radiological control with Gastrografin®.

TABLE 1 - PATIENT CHARACTERISTICS.

Tot	20 (10F:10M)
BMI	49,39 Kg/m ² (39-63)
Age	42,05 (25-64)
Comorbidities	DM II 75% Hypertension 80% OSAS 60%

tients (1 suture line leak, 1 intra-abdominal sepsis). There were no late complications (Table 2). Excess weight loss (EWL%) was as follows: 6 months 40,53%, 12 months

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TABLE 2 - COMPLICATIONS RATE.

Early complications	-1 suture line leak -1 intra-abdominal sepsis
Late complications	none
No Mortality	

TABLE 3 - EXCESS WEIGHT LOSS (EWL) %.

	6 months	12 months	24 months
EWL%	40,53	47,42	60,07

TABLE 4 - RESOLUTION OF COMORBIDITIES.

Resolution of comorbidities	- DM II 86,7% - Hypertension 93,75% - OSAS 100%
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47,42%, 24 months 60,07% (Table 3). We observed resolution of comorbidities as follows: DM II 86,7%, Hypertension 93,75%, OSAS 100% (Table 4).

Conclusion

LSG was initially considered as a first step (a bridging procedure) in super-obese patients with comorbidities (3) to be followed by a second definitive procedure such as Biliopancreatic diversion with the duodenal switch (BPD-DS) (4). Our results, in accordance with the international literature, show a weight loss of 60% after 2 years of follow-up (5). The advantages of LSG are the relative simplicity, satisfactory weight loss results and safety of the technique. LSG could be considered a primary definitive procedure (6). LSG is not only a restrictive procedure, but also has metabolic effects (7).

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