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VISCERAL SURGERY VIDEOS

Laparoscopic conversion of failed sleeve gastrectomy to single anastomosis gastro ileal bypass (SAGI) (with video)

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KEYWORDS

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Sleeve gastrectomy (SG) is the most frequently performed bariatric intervention worldwide [1]. Weight regain after SG is increasingly reported. After failed SG, several secondary procedures are possible: conversion into biliopancreatic diversion, Roux en Y gastric bypass (RYGB) or revisional-SG. One anastomosis gastric bypass (OAGB) and single anastomosis duodenoileal bypass (SADI) represent new alternatives [2]. Recently De Luca et al. presented the single anastomosis gastro ileal (SAGI) bypass. The SAGI consists of creating a small gastric pouch and a single gastroileal anastomosis, 3 meters from the ileocecal valve [3].

In this video, we present the case of a 38-year-old woman who underwent SG in 2013. Her BMI was 43 kg/m². At 2 years postop, she lost 35 kilograms with 66% EWL. By December 2016, she regained weight and reached a BMI of 38. Appropriate investigations were done and a volumetric scan was performed showing a linear and not dilated pouch volume of 220 cm³. After careful nutritional and psychological evaluation, we decided to perform a conversion to a SAGI bypass.

Four laparoscopic ports were inserted. The lesser and greater curvatures were dissected. The gastric tube was divided to create the new gastric pouch. This pouch was similar to the pouch of the OAGB. The entire small bowel was measured from the ileocecal valve to the ligament of Treitz. The total length of the small bowel was found to be 7 meters long. A hand-sewn end to side gastroileal anastomosis was then performed at 300 cm from the ileocecal valve. Consequently, the biliopancreatic limb was 4 meters long. In comparison, the common limb starts 2 meters after

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the ligament of Treitz when performing a one anastomosis gastric bypass (OAGB). The Petersen defect was closed. Blood loss was 20 cc and the operative time was 60 minutes. The postoperative course was uneventful. At 18 months, the patient had lost 40 kgs and the % EWL was 105%, with a BMI of 24. One daily bowel movement of soft stool was reported, with no diarrhea. No bile reflux documented. Blood test did not reveal hypoproteinemia. This video shows the different steps necessary to follow to perform a single anastomosis gastro ileal (SAGI) bypass.

SAGI is a variation of the OAGB. The difference lies in the location where small bowel length measurement is started. This measurement, started from the ileocecal valve, allows defining the length of the common tract in order to limit the malabsorptive aspect of OAGB.

Despite its simplicity, there are little data describing the results of this approach.

This concept is under evaluation and cannot be recommended at the moment. Longer follow-up and comparison with settled bariatric operations are needed.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.jviscsurg.2019.05.003>.

Disclosure of interest

The authors declare that they have no competing interest.

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