

Laparoscopic bariatric surgery after endoscopic sleeve gastroplasty: Is it more difficult?

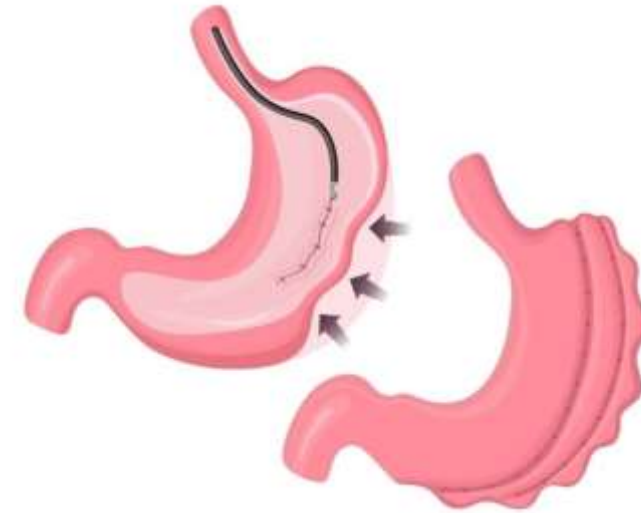
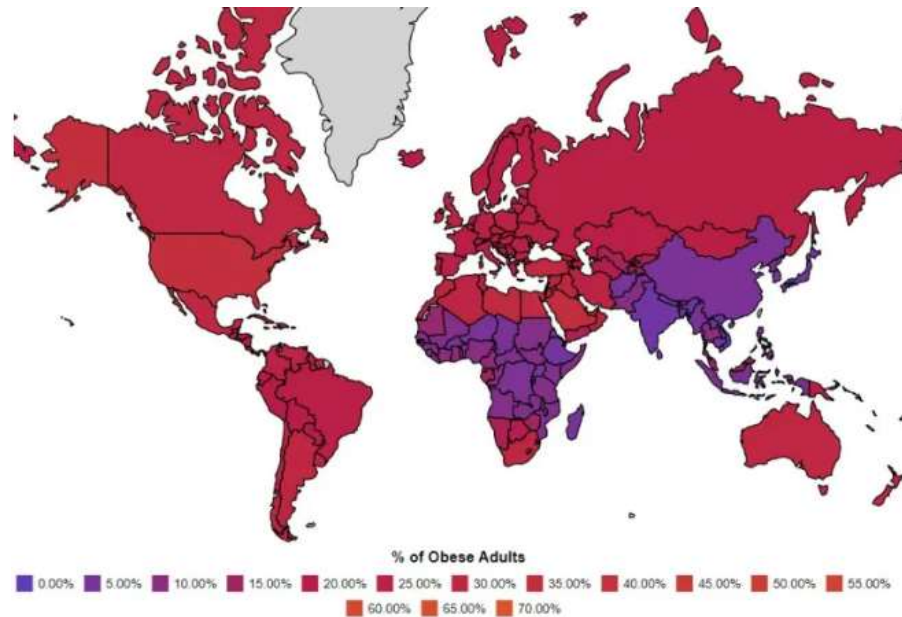
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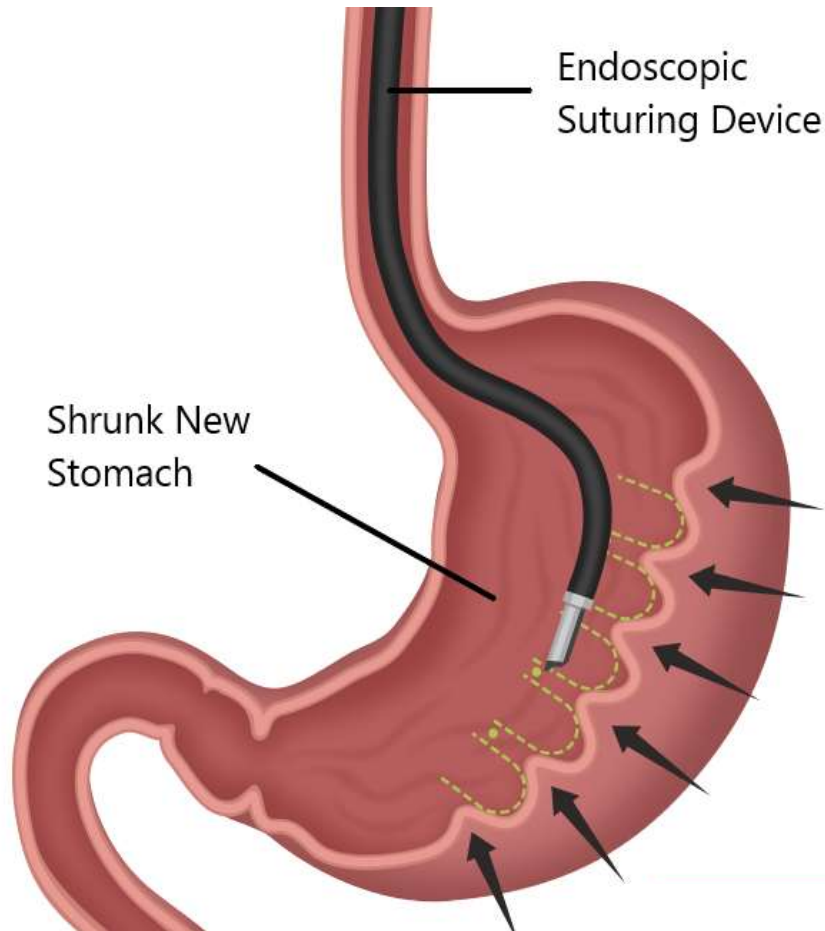


Obesity is a significant problem worldwide, currently on the rise. More than 1 billion people worldwide are obese.



Less invasive procedures than bariatric surgery are available as treatment, such as endoscopic sleeve gastropasty (ESG) which is spreading worldwide as an alternative solution.

Endoscopic Sleeve Gastroplasty



Endoluminally placed full-thickness sutures through the gastric wall from the prepyloric antrum to the gastroesophageal (GE) junction

to restrict the stomach into a sleeve-like configuration



The most used endoscopic suturing device:
“Overstitch; Apollo Endosurgery” that requires a double-channel therapeutic gastroscope

ESG inclusion criteria

- Body mass index (BMI) > 30 kg/m²
- Patients with multiple unsuccessful diet and lifestyle weight loss attempts
- Patients who underwent multiple abdominal surgeries, which are not eligible for surgery
- Patients who are unwilling to undergo surgery

ESG exclusion criteria

- Presence of gastric malignancy
- Active gastric ulceration
- Known gastric vascular abnormalities
- Presence of a large hiatal hernia

In patients who have not benefited from ESG can laparoscopic bariatric surgery represent a successful revision technique?

Combined approach: single stage technique

Intraoperative
EGDS



Laparoscopic
abdominal
exploration



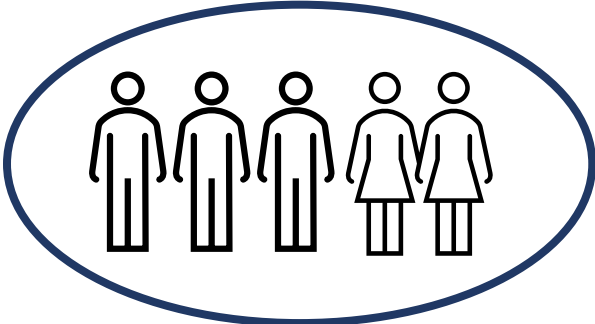
Accurately identify
and remove ESG sutures



Mark any suture that
cannot be
endoscopically
removed

Avoid possible strictures caused by sutures retained within the gastric wall
or interposed in the stapler line causing a misfire

Our Experience



Mean BMI
at the time of primary ESG:

39.5



Nadir % excess weight loss
(%EWL) of 63.3

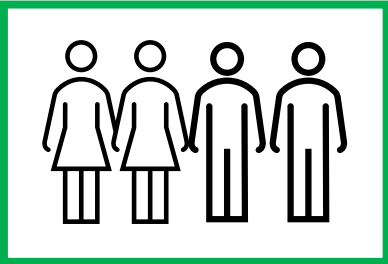
Mean BMI
at the time of the revision:

39.6

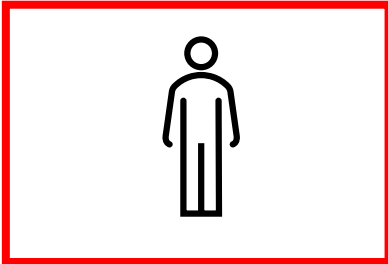


- 1 RYGB
- 4 SG

according to each patient's surgical indication



No complications, nor lengthening of the hospital stay



Early gastric fistula in a revisional SG

After 6 months



%EWL of 76.1



Operative and conservative treatment with NG tube and enteral nutrition



62 years old Male patient

Primary ESG in 2021 (154 kg, BMI 45,5)



Revisional SG in 2023 (152 kg, BMI 44,9)

(13/01) IV postoperative day -> abdominal pain , T 37.2°C

-> Abdominal CT scan: copious leakage of the contrast agent by an **gastric fistula** in cardial site.

-> Urgent explorative laparoscopy with toilet of peritoneal cavity and placement of abdominal drains.

-> Gastroscopy : Placement of NE tube, for enteral nutrition, and Salem Sump type tube.



(07/02) Endoscopic suturing of the fistulous orifice to reduce its caliber with placement of double pigtail prosthesis and removal of Salem tube.

(12/02) Abdominal CT scan showed good outcome of the endoscopic procedure -> discharged home.



(27/04) Control Gastroscopy: millimetric orifice from which pig-tail prosthesis comes out.

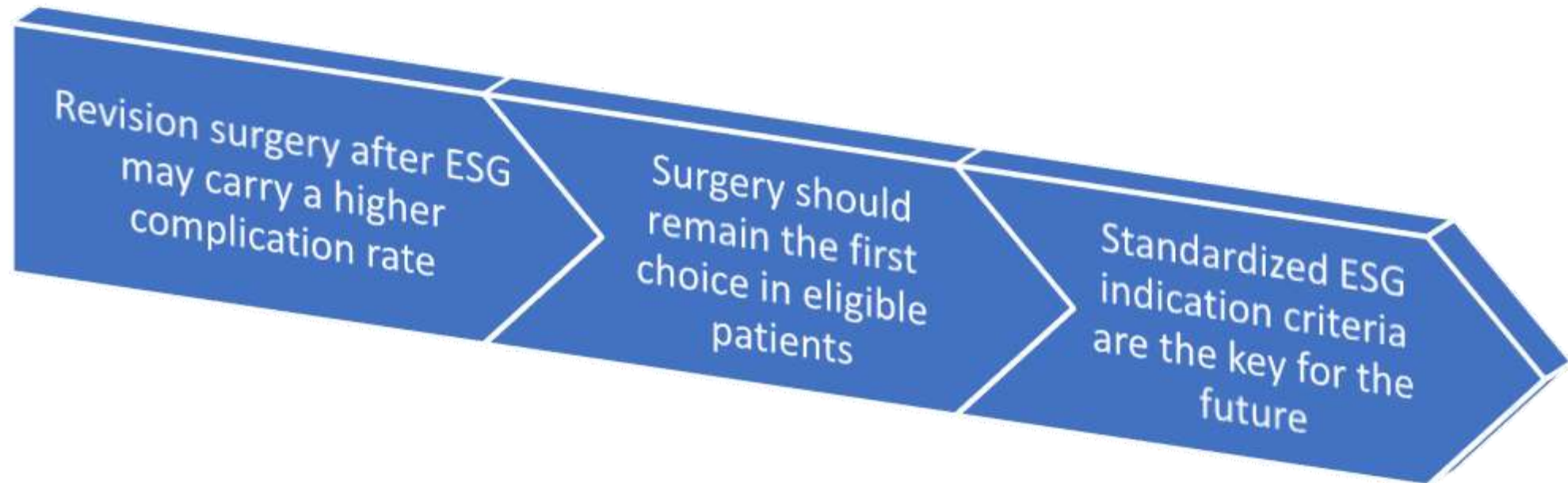
(16/06) Abdominal TC scan: no collections or free air bubbles along the gastric resection's slice.

(27/07) Endoscopic removal of Pig-tail prosthesis.

Current weight 141 Kg, BMI 41,6

Conclusions

To represent a successful option, laparoscopic revision, in patients who have not benefited from ESG, should always be performed with a combined approach



Thank you for your attention!

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