SLIM-TOUPET: FUNDOPLICATION WITH GASTROPLICATION FOR SEVERE REFLUX ASSOCIATED WITH MILD OBESITY – PILOT CLINICAL SERIES

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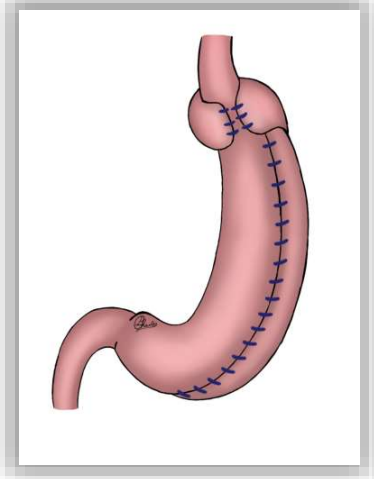

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2023

CONFLICT OF INTEREST DISCLOSURE

[X] I have the following potential conflict(s) of interest to report:

Disclosures

Ricardo Zorron

✓ *Apollo EndoSurgery*

✓ *Ethicon EndoSurgery*

✓ *GORE*

✓International consultant

✓Scientific Advisory Board

Bariatric Surgery

Bariatric Endoscopy

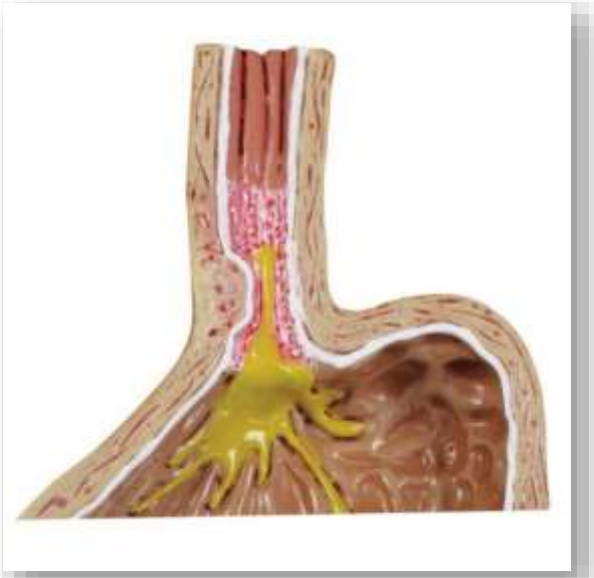
Robotic Surgery

PITFALLS OF FUNDOPLICATION IN PATIENTS WITH OBESITY

Background

- RYGB is the most effective method for DRGE in patients with obesity Class II and III
- Primary surgical therapy for obesity in Class I and below is mostly not indicated
- Fundoplication without weight reduction has worse results in reflux recidivism and dependence to medication.

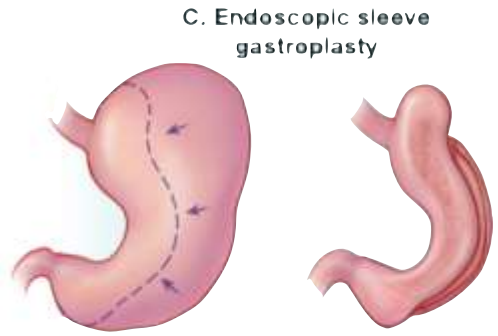
Reflux after SLEEVE – Long Term



- 5 to 10% Conversion rate to RYGB due to Reflux
- De novo GERD in 31.6% in SLEEVE, 10% in RYGB
- 8 in 10 studies showed new onset GERD in long term
- Barrett non-displastic newly discovered in 17.2%

SM-BOSS Trial. Peterli et al JAMA 2018
SLEEVEPASS Trial . Salminen P JAMA 2018
Systematic Review . Sebastianelli et al Obes Surg 2019
Genco A. SOARD 2017

Endoscopic Sleeve Gastroplasty for Mild Obesity



E-Videos Thieme

Endoscopic sleeve gastroplasty using Apollo Overstitch as a bridging procedure for superobese and high risk patients

Zorron R et al. Endoscopy 2018; 50:81-83

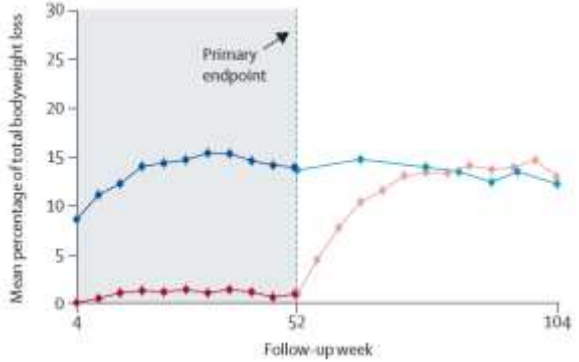
▶ Fig. 1 Photograph showing the positioning of the patient, devices, and team during the performance of endoscopic sleeve gastroplasty in a superobese patient. The patient is under general anesthesia, intubated, and in a supine position.

▶ Fig. 2 The suturing pattern for the six parallel stiches used to perform endoscopic sleeve gastroplasty. A triangular pattern is obtained by positioning the sutures as following: (1) anterior wall; (2) greater curvature; (3) posterior wall; (4) posterior wall; (5) greater curvature; and (6) anterior wall.

In some cases, bariatric procedures cannot be performed via laparoscopic or open surgery because of surgical contraindications or high operative risk. Endoscopic sleeve gastroplasty (ESG) using an Overstitch (Apollo Endosurgery, Austin, Texas, USA) is a recently described procedure [1, 2] with good preliminary

Endoscopic sleeve gastroplasty for treatment of class 1 and 2 obesity (MERIT): a prospective, multicentre, randomised trial

Barham K Abu Dayyeh, Fateh Bazerbachi, Eric J Vargas, Reem Z Sharaiha, Chris Christopher G Chapman, Vivek Kumbhari, Michael B Ujiki, Jeanette Ahrens, Co Natan Zundel, Erik B Wilson



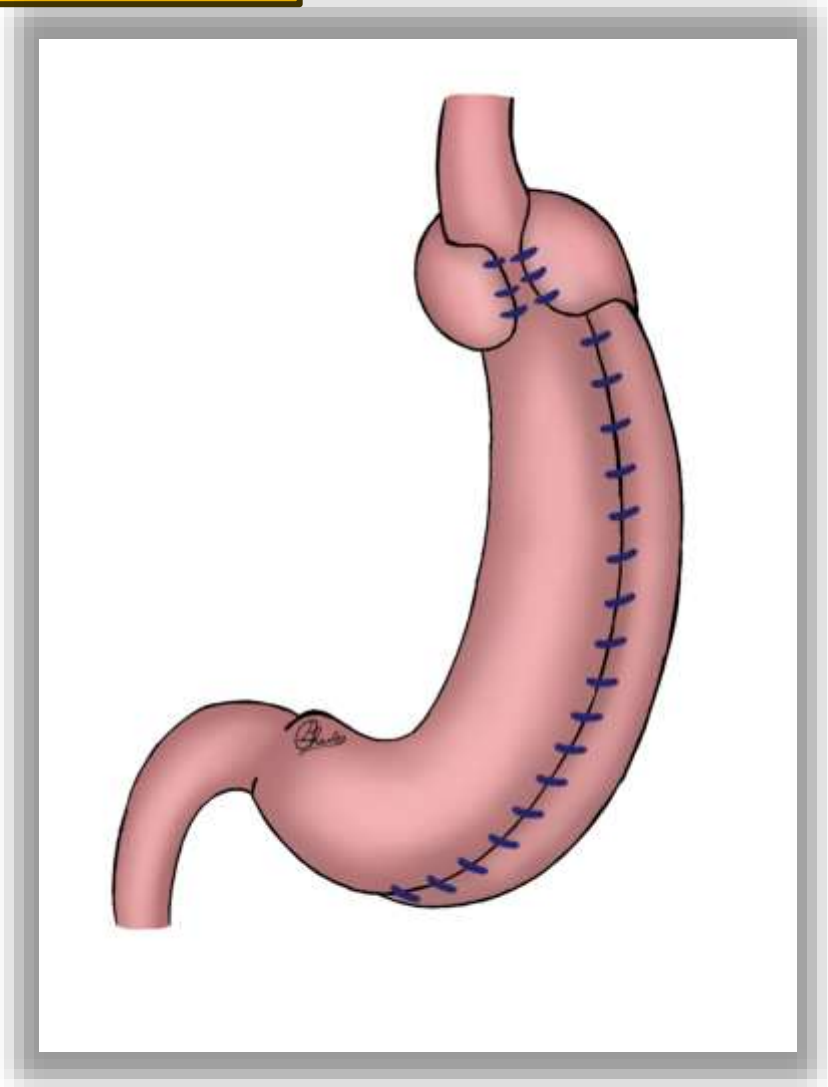
ESG promotes excellent results in BMI lower than 35kg/m2

BUT... Is not effective against DRGE

SLIM-TOUPET TECHNIQUE

- Combination from a Toupet Fundoplication with the Greater Curvature Gastric Plication

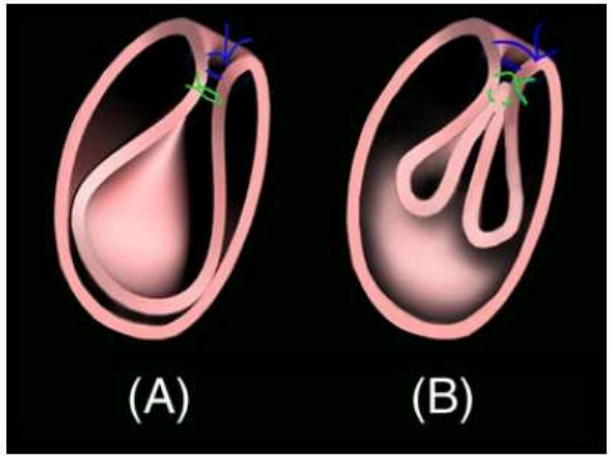
- Indication: **21 Pts** with DRGE with or without hiatal hernia, with BMI between 28 and 39,9kg/m2 were included.



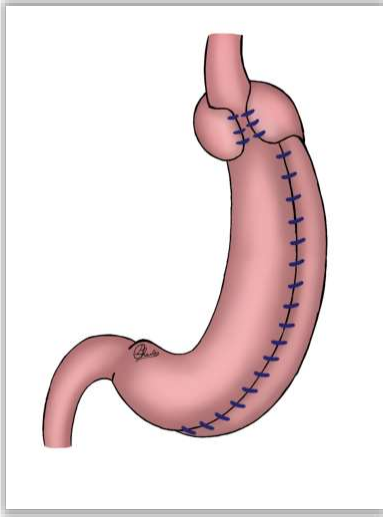
SLIM-TOUPET TECHNIQUE

Methods:

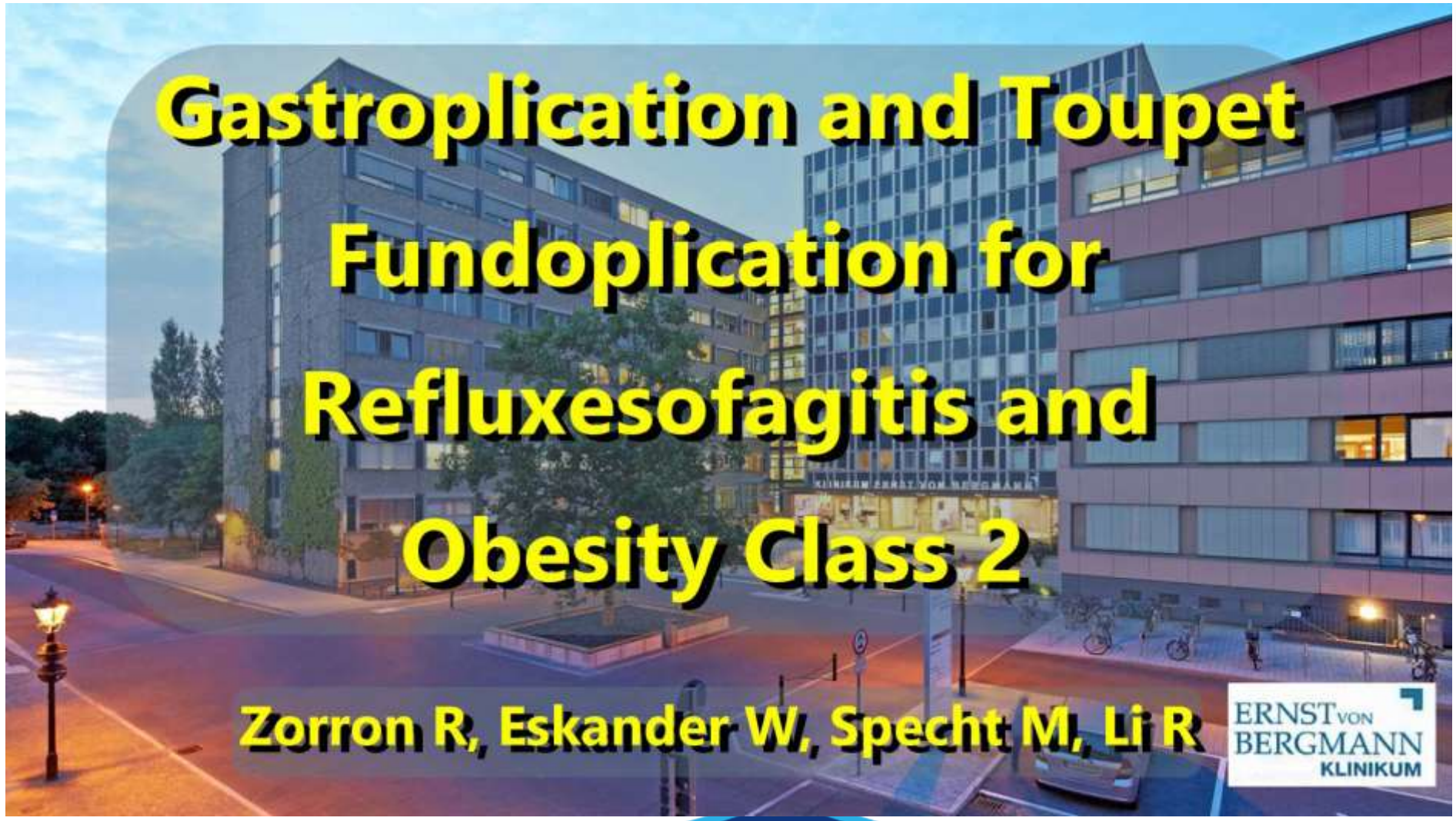
- Correction of hiatal hernia (1 barbed suture)
- Dissection from antrum to cardia (same as SG)
- Toupet Fundoplication
- Double plication, not single plication
- 1-2 cm between sutures

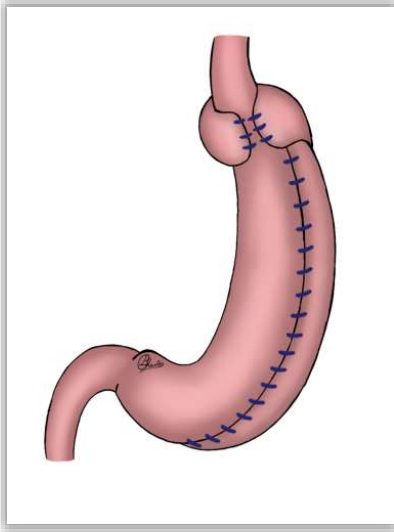


Skrekas et al 2011



SLIM-TOUPET TECHNIQUE

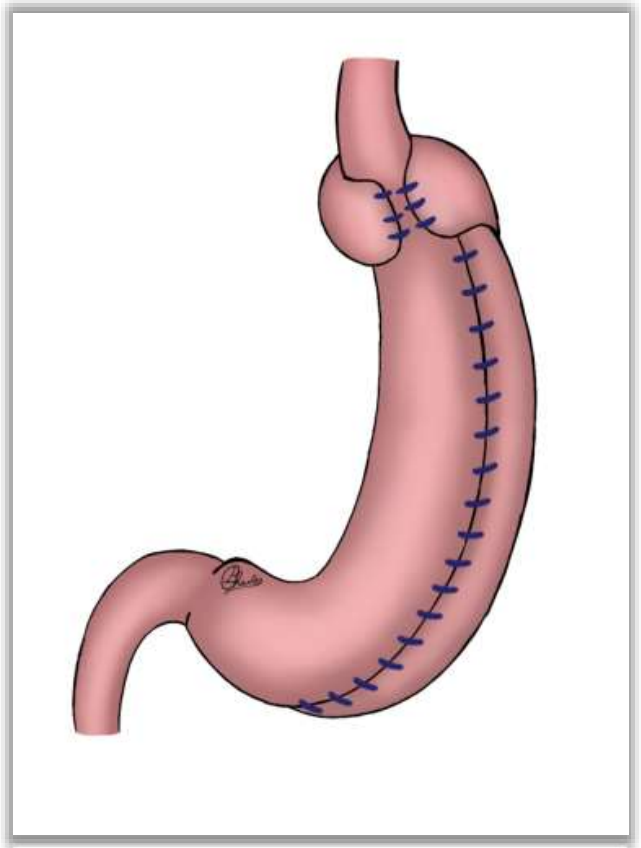


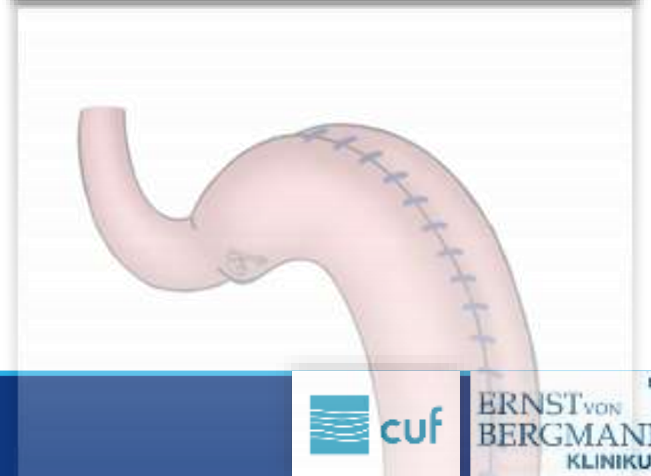


SLIM-TOUPET FUNDOPLICATION WITH GASTROPLICATION

RESULTS

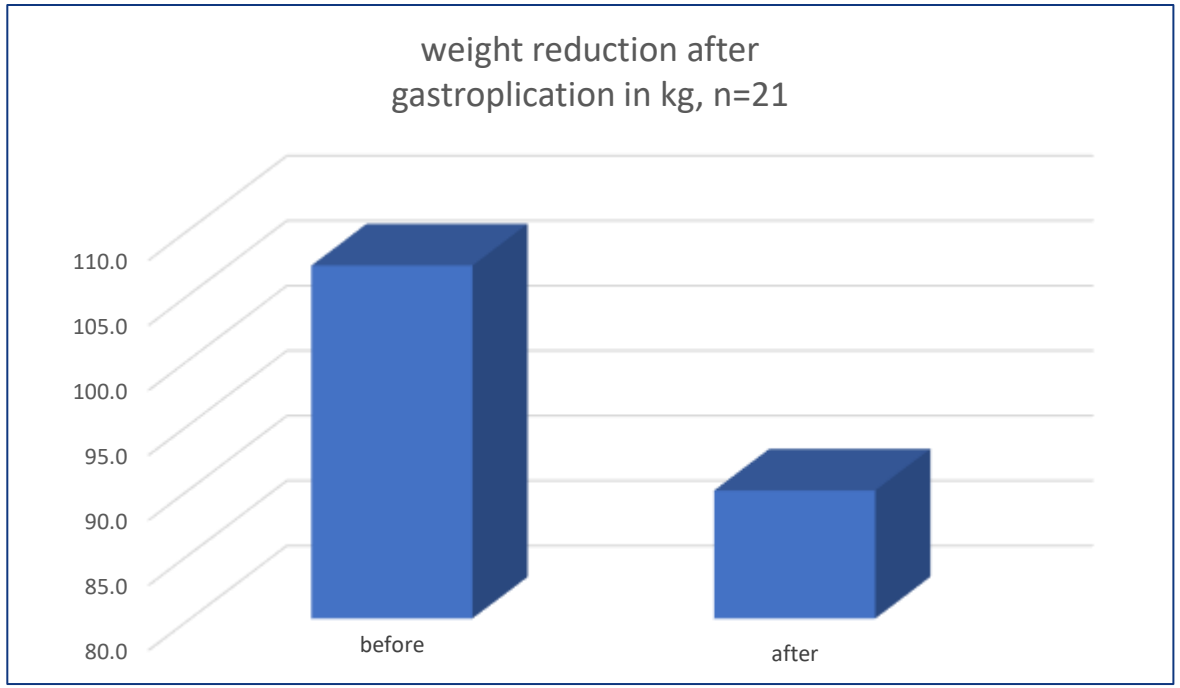
- 21 patients, all women,1 to 2 years FU
- Mean BMI 36.6kg/m2 (28.2 to 47)
- Dropped to mean BMI 28.4kg/m2
- OP time 118min
- Hospital stay mean 2,1 days
- 2 complications (1 bleeding, 1 abscess)

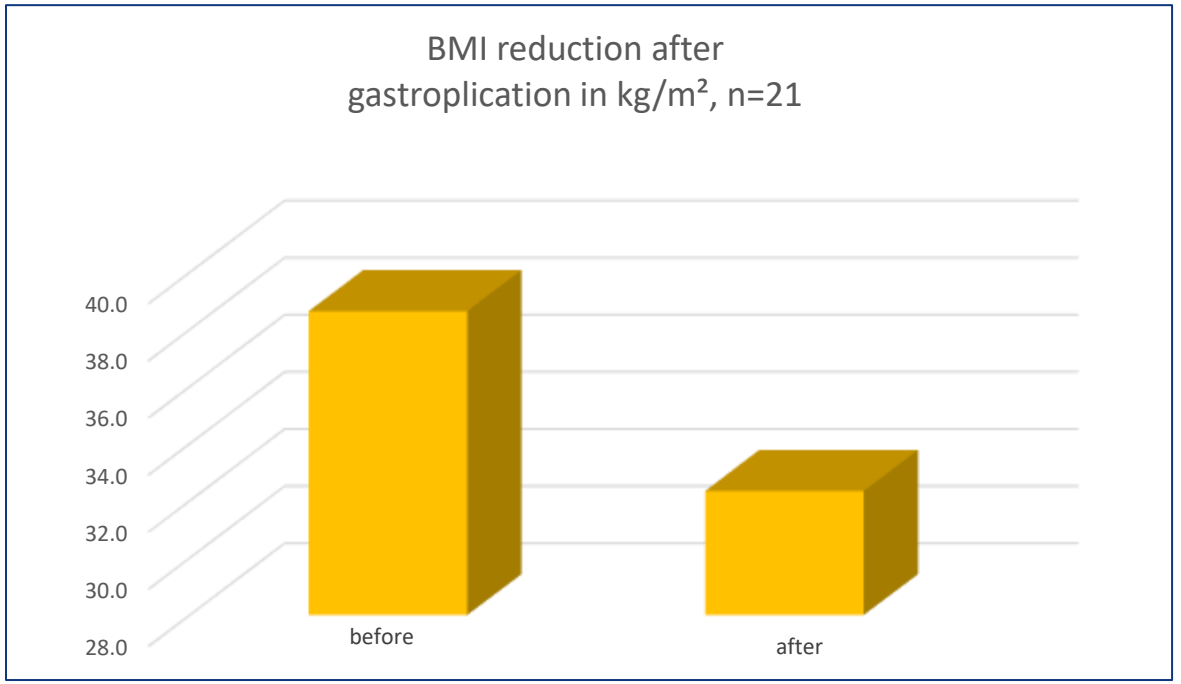




SLIM-TOUPET FUNDOPLICATION WITH GASTROPLICATION

RESULTS



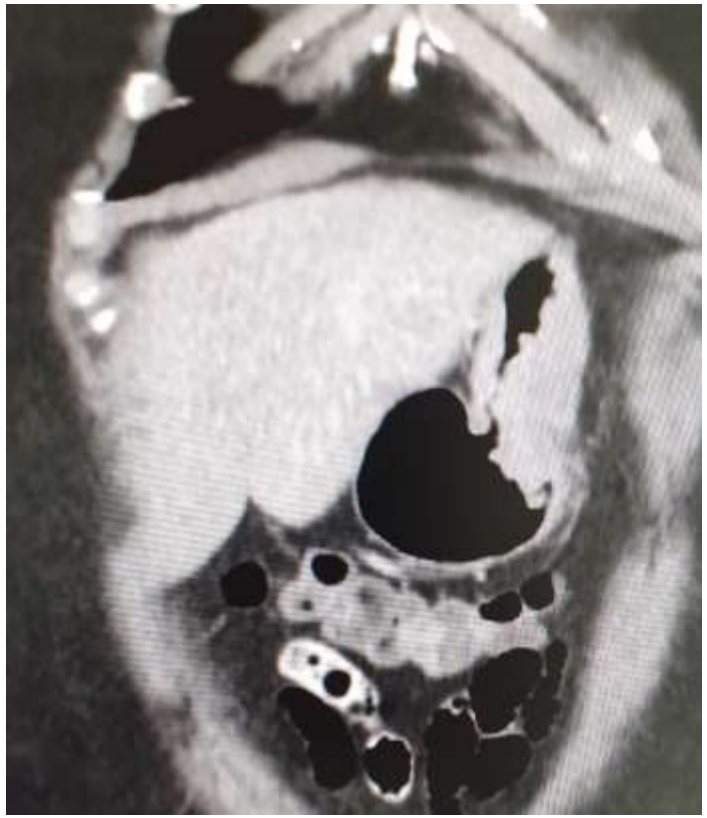


- Mean BMI loss 36.6kg/m2
- Mean TBWL 16%
- DRGE control- no PPIs in 70%

Planned endoscopic control and pH at 2-y

SLIM-TOUPET TECHNIQUE

Results:



- Radiologic aspect

LAPAROSCOPIC GREATER CURVATURE GASTROPLICATION

Laparoscopic Greater Curvature Plication for the Treatment of Obesity: a Systematic Review

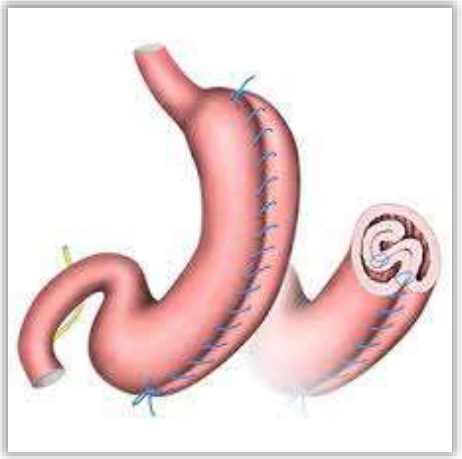
Toni El Soueidy[1] · Radwan Kassir[2] · Mary Nakhoul[3] · Axel Balian[4] · Marco Nunziante[2] · Maissa Safieddine[5] · Gabriel Perlemuter[4,6] · Panagiotis Lainas[1,6] · Ibrahim Dagher[1,6]

Obesity Surgery (2021) 31:1168–1182

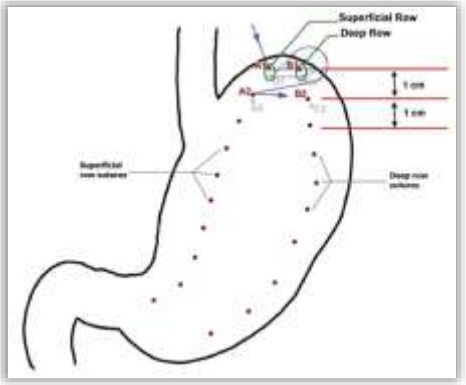
- Tretbar LL et al 1976
- Talebpour M, Amoli BS 2007
- Almino Ramos et al 2010
- Fried M et al 2012
- Skrekas et all 2011

- 3103 pats BMI 31.2 – 47.8
- EWL 12 months 71 to 77%
- EWL 10 years 42%

- Gastric Outlet obstruction 1.4%
- Gastric prolapse 2.3%
- Gastric leak 0.7%



LAP GREATER CURVATURE GASTROPLICATION



4pt Double Plication
Talebpour et al

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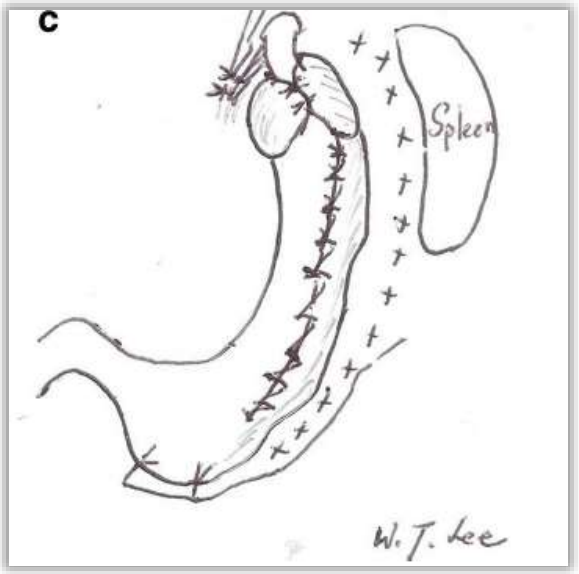
NISSEN-GASTROPLICATION TECHNIQUE

Laparoscopic Nissen Fundoplication with Gastric Plication as a Potential Treatment of Morbidly Obese Patients with GERD, First Experience and Results

Wei-Jei Lee · Ming-Lun Han · Kong-Han Ser · Ju-Juin Tsou · Jung-Chien Chen · Chia-Hsien Lin



- Combination from a NissenFundoplication with Greater Curvature Gastric Plication
- 25 pts, mean BMI 37,9
- 2 complications (1 leak, 1 abscess)
- EWL 46%

tion was required. A significant decrease in the prevalence of erosive esophagitis (80 vs. 17 %) after LNFGP was observed. The mean weight loss was 9.7, 14.1, 17.9, and 18.1 % at 1, 3,

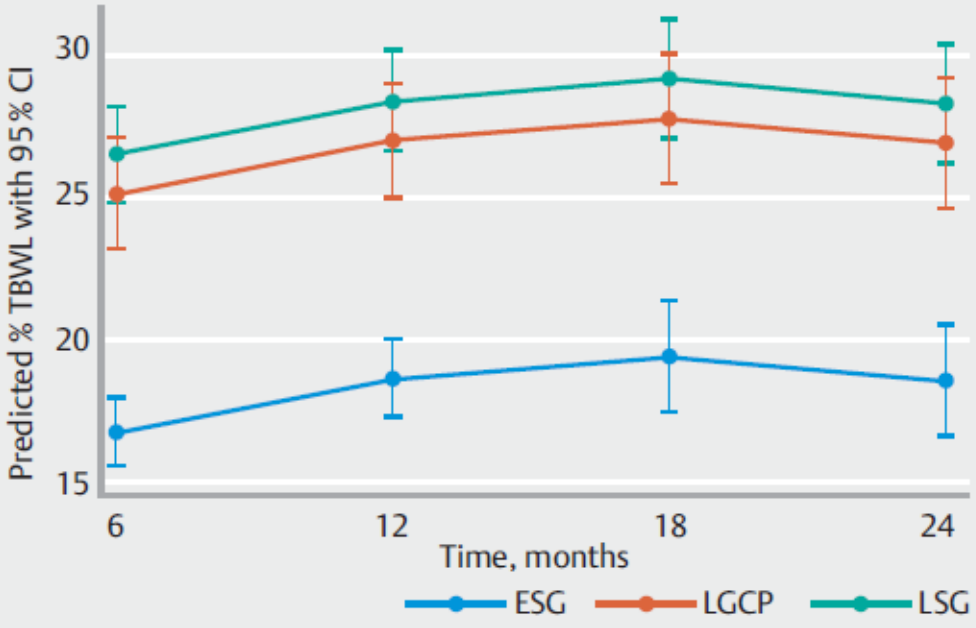
Wei-Jei Lee et al 2014

SLIM-TOUPET FUNDOPLICATION WITH GASTROPLICATION

Endoscopic sleeve gastroplasty, laparoscopic sleeve gastrectomy, and laparoscopic greater curve plication: do they differ at 2 years?

Authors
Gontrand Lopez-Nava*,1, Ravishankar Asokkumar*,1,2, Inmaculada Bautista-Castaño1, Janese Laster1, Anuradha Negi1, Stephanie Fook-Chong3, Javier Nebreda Duran4, Eduard Espinett Coll5, Jordi Pujol Gebelli6, Amador Garcia Ruiz de Gordejuela7

SLEEVE GASTRECTOMY ≠ **ENDO-SLEEVE ESG** ≠ **LAP GASTROPLICATION**



- ESG 199 LSG 61 LGCP 36
- 2 years
- Mean BMI 39.6kg/m2
- ESG less effect, less complications

Lopez-Nava Gontrand et al. ESG vs. LSG vs. LGCP for obesity… Endoscopy 2021; 53: 235–243

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CONCLUSIONS

2022 American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO): Indications for Metabolic and Bariatric Surgery

Dan Eisenberg, M.D.[a,*], Scott A. Shikora, M.D.[b], Edo Aarts, M.D., Ph.D.[c],

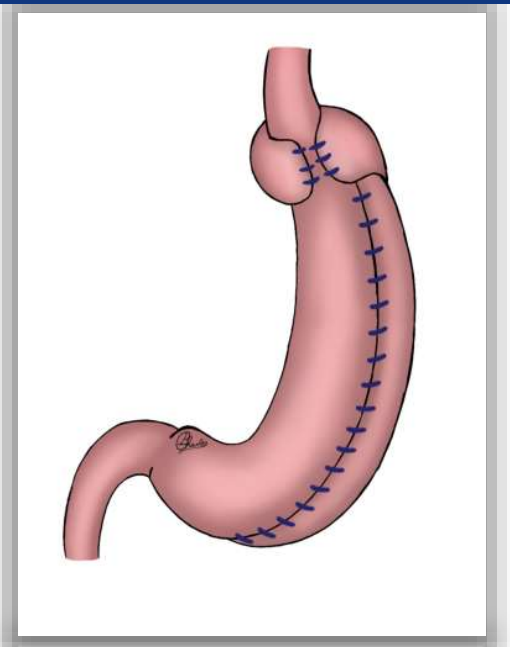
IFSO

BMI 30–34.9 kg/m^2. Class I obesity (BMI 30–34.9 kg/m^2) is a well-defined disease that causes or exacerbates multiple medical and psychological co-morbidities, decreases longevity, and impairs quality of life. Prospective and large retrospective studies support the notion that MBS should be considered a treatment option for patients with class I obesity who do not achieve substantial or durable weight loss or co-morbidity improvement with nonsurgical

U CAN CHOOSE THE BYPASS

- RYGB is the most effective technique for DRGE associated with obesity.

CONCLUSIONS



- RYGB is the most effective technique for DRGE associated with obesity.
- The concept of Fundoplication with Gastroplication can be an alternative for patients with reflux disease associated with mild obesity.
- Longer follow up studies are needed to indicate the rates of adequate GERD therapy and weight loss results.