



XXVII Ifso World Congress  Melbournne 2024

ENDOSCOPIC REVISION

Barham Abu Dayyeh, MD MPH FASGE FAGA

Director of Advanced Endoscopy

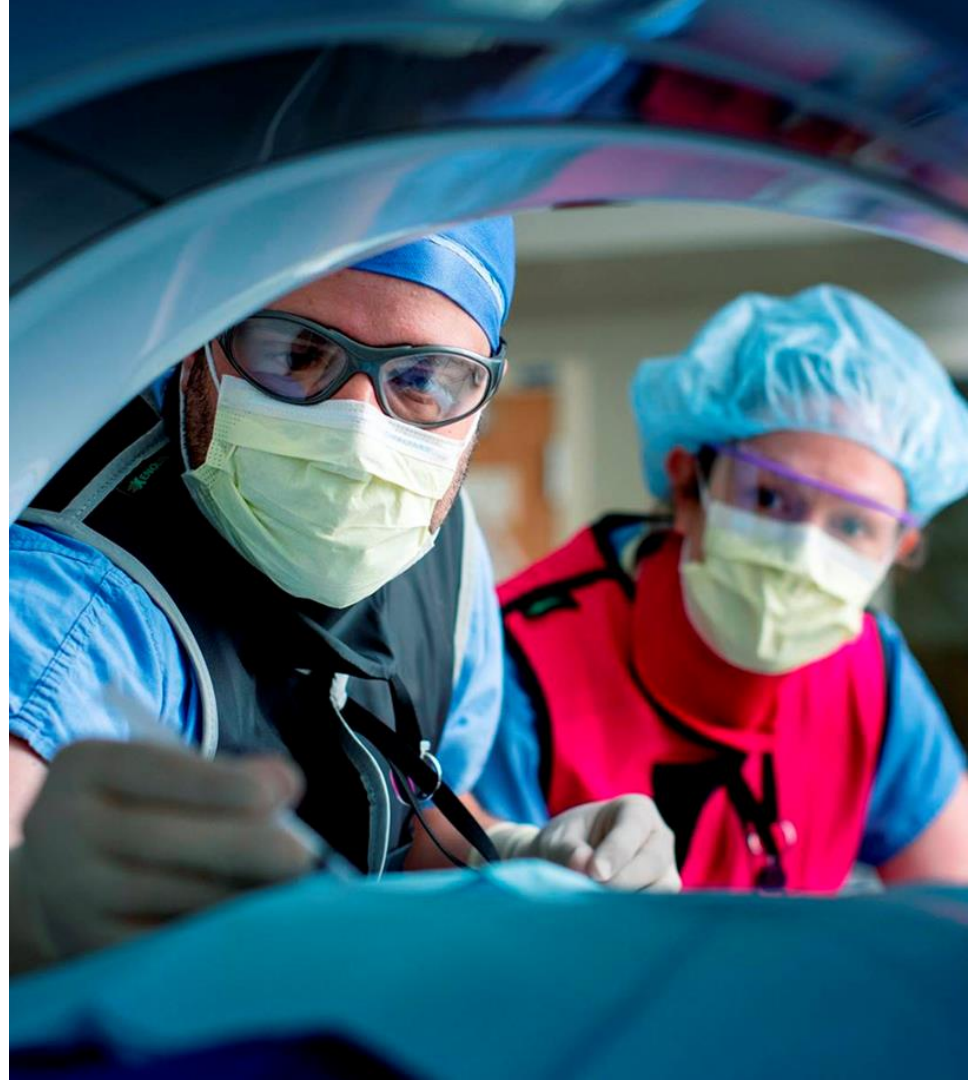
Professor of Medicine

Associate Research Chair for Innovation, Department of Medicine

Assistant Medical Director, Business Development

Mayo Clinic, Rochester MN

Abudayyeh.Barham@mayo.edu



DISCLOSURES

- **Consultant:** Boston Scientific, Metamodix, BFKW, Apollo Endosurgery, Medtronic, Endogenex
- **Co-inventor:** Endogenex
- **Research Support:** Apollo Endosurgery, USGI, Endogastric Solutions, Boston Scientific, Medtronic, Spatz, Cairn.
- **Speaker:** Johnson & Johnson, Olympus, Endogastric Solutions



1

After RYGB

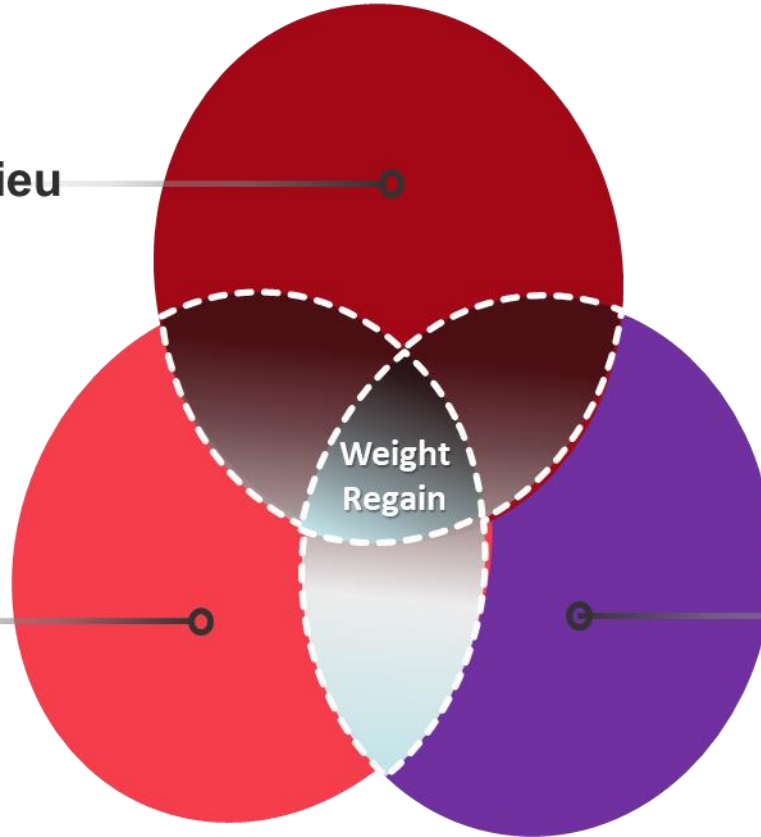
What Happens?



Genetic Milieu



Modifiable Risk Factors



Environmental and Psychosocial

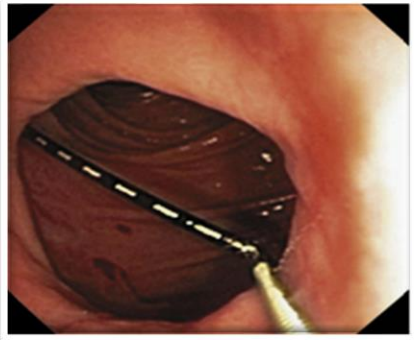
Endoscopy + UGI contrast study

Modifiable risk factors for weight regain after RYGB

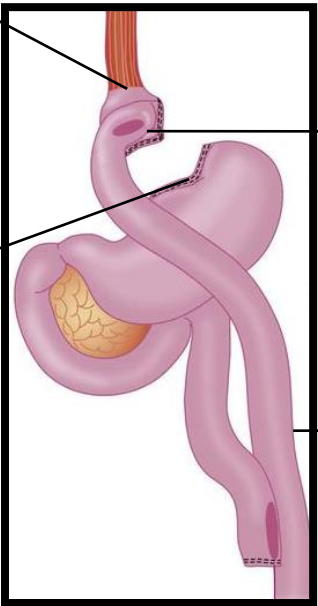
Anti-reflux Barrier



Pouch size + Gastrojejunal stoma dilation



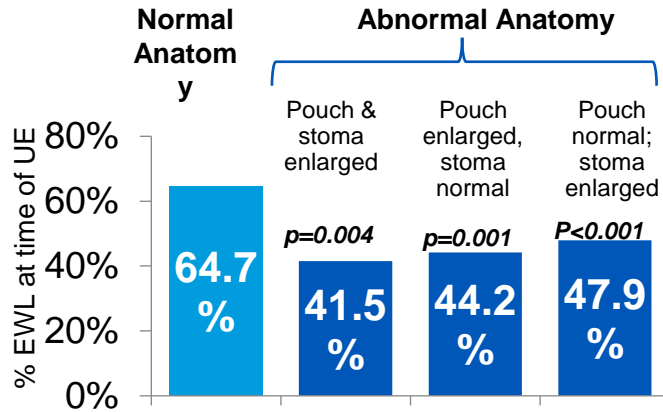
Gastrogastric fistula



Short Roux Limb + Bile Reflux

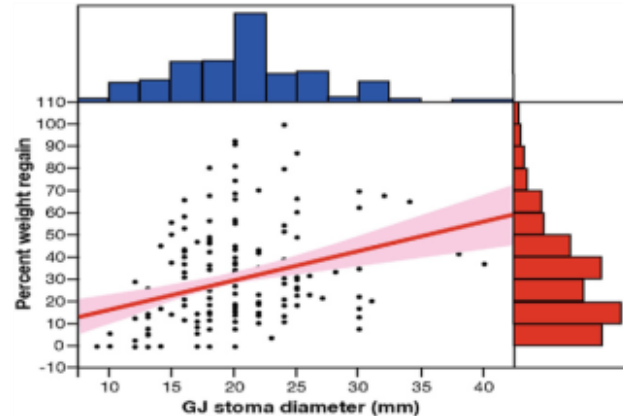
Post-RYGB weight loss correlated to outlet diameter

Post-RYGB EWL at Upper Endoscopy¹



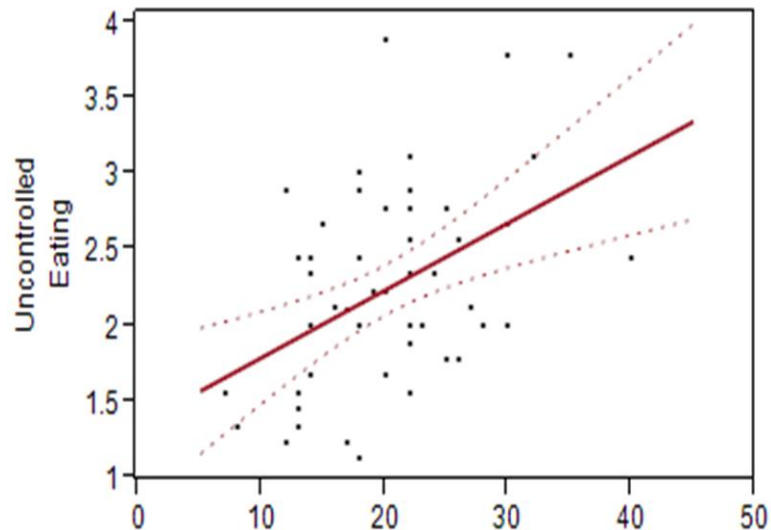
- Multivariate analysis identified stoma diameter was independently associated with weight regain

Correlation of EWL and Stoma Diameter²



1. Heneghan et al. SOARD 2012
2. Abu Dayyeh et al, CGH 2011

Association of GJ stoma diameter with *uncontrolled eating on TFEQ-R21*

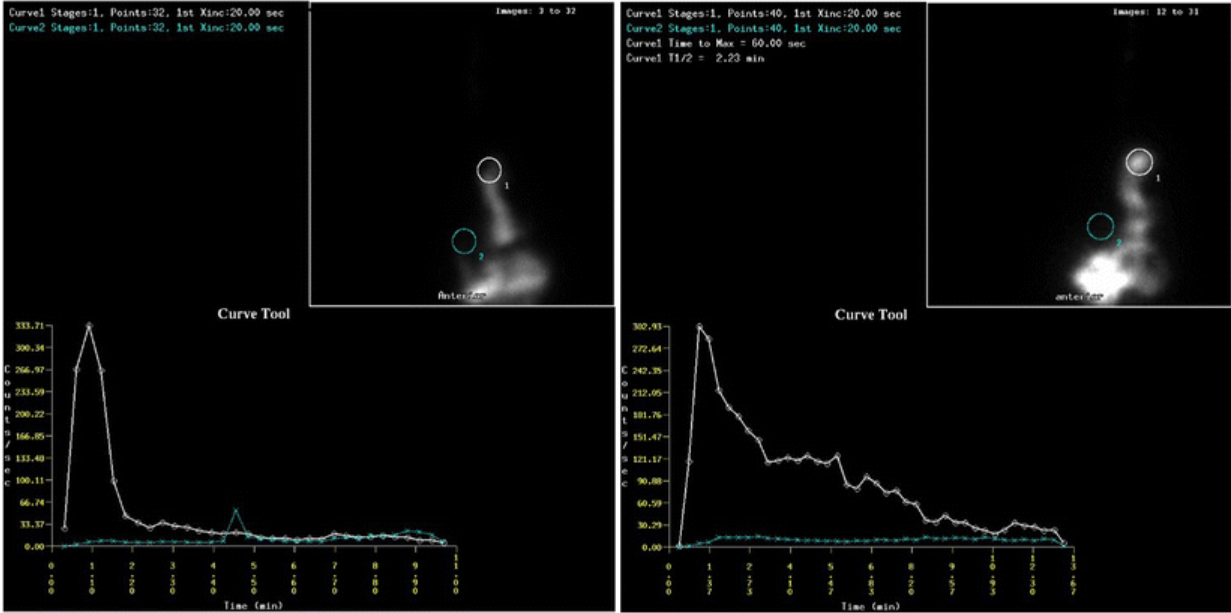


	Univariate β , p-value	Multivariate β , p-value
GJ Stoma (mm)	0.45, <0.01	0.37, 0.019
BMI (kg/m ²)	0.23, 0.06	-0.06, 0.73
Weight Regain (%)	0.34, <0.01	0.21, 0.21

Scintigraphy Studies after Gastric Bypass

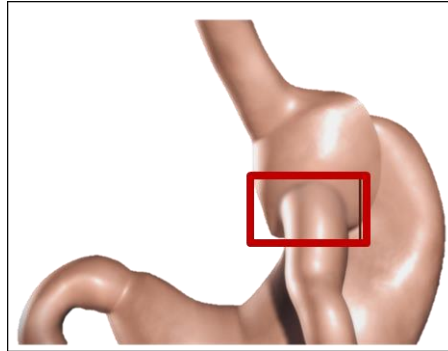
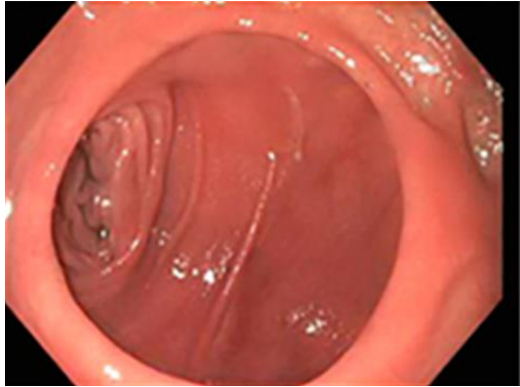
Before TORe

After TORe



Available modalities for endoscopic management of weight regain after RYGB

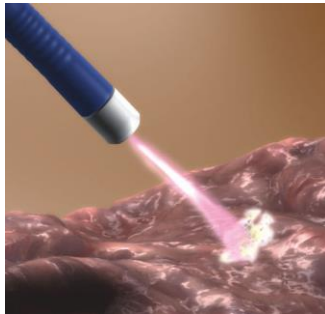
Before



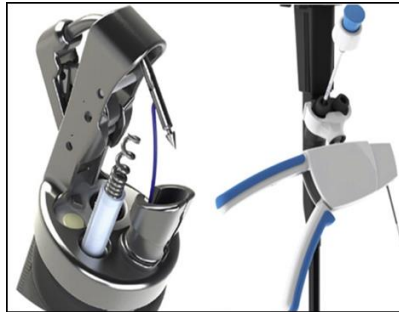
After



Ablation



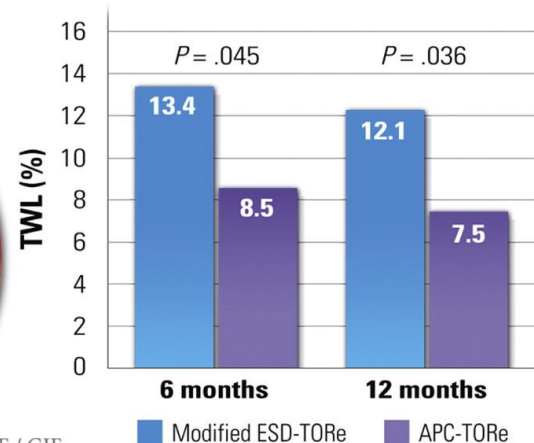
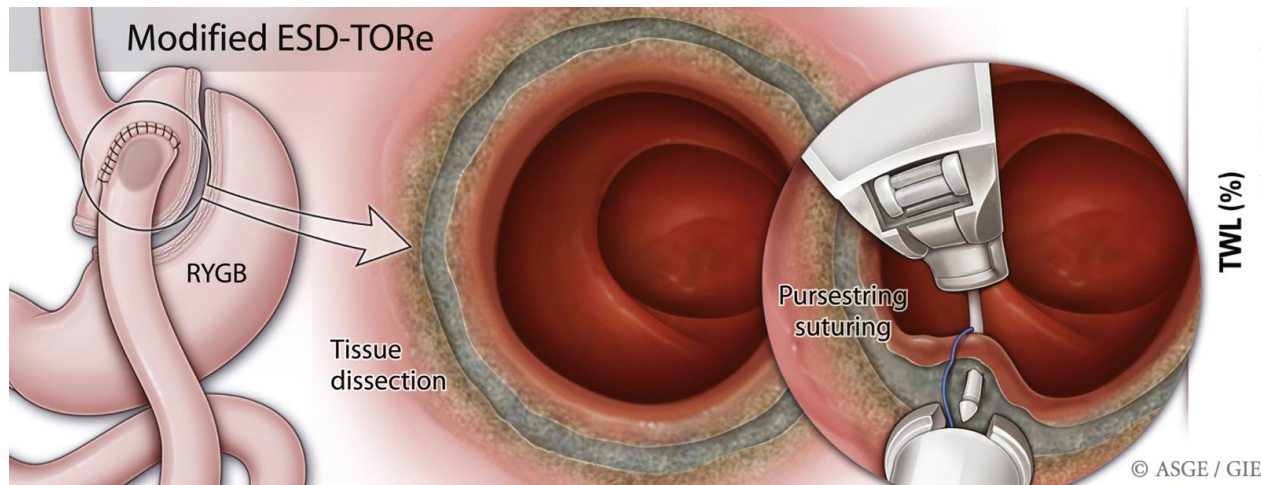
Suturing



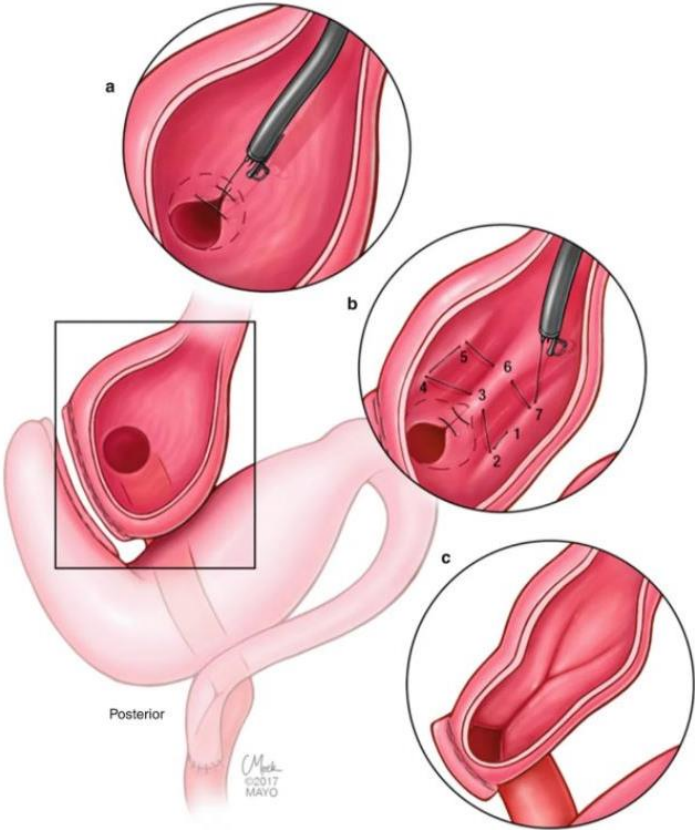
Plication



Improved Technique with Enhanced Durability (ESD TORe)

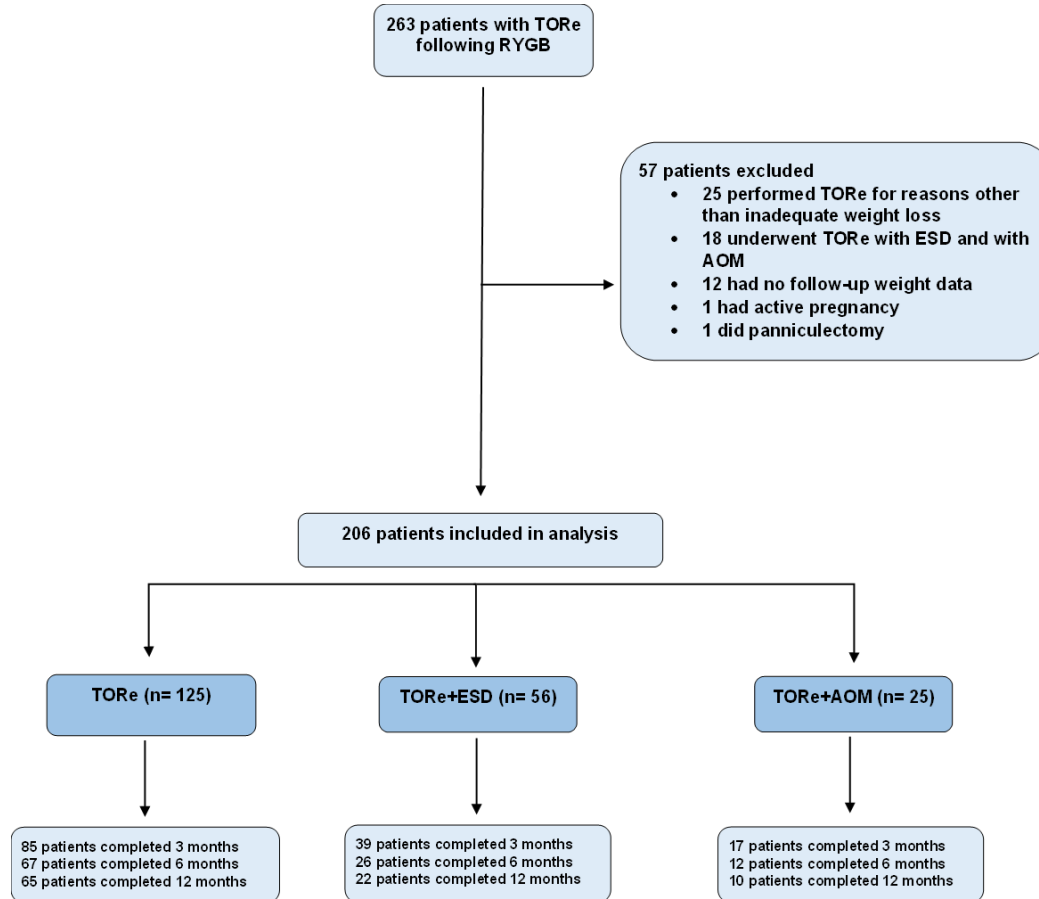


Improved Technique (Tubular Gastroplasty of Pouch)

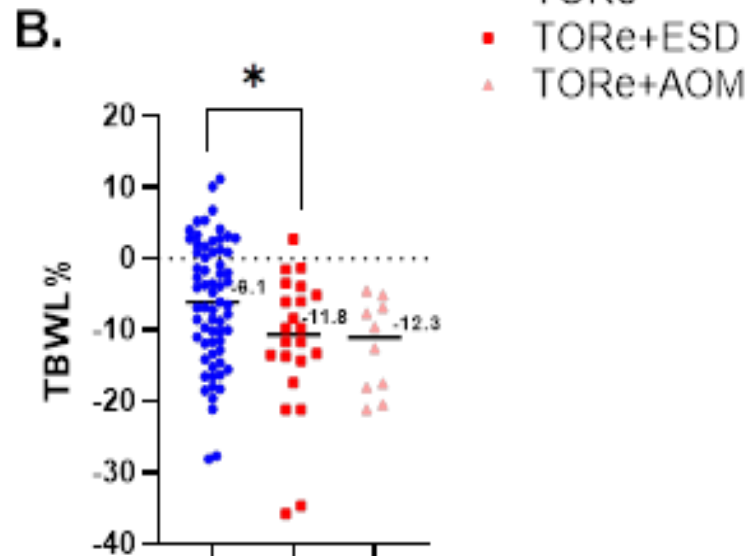
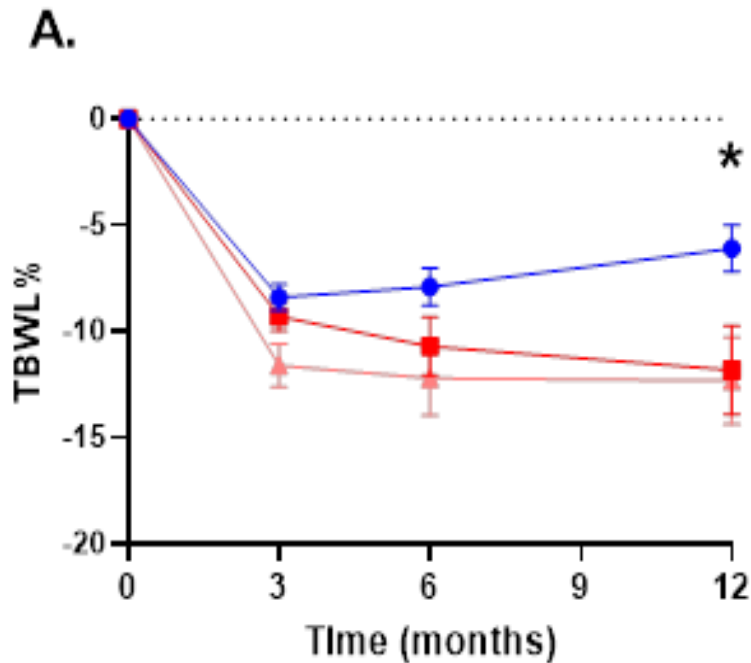




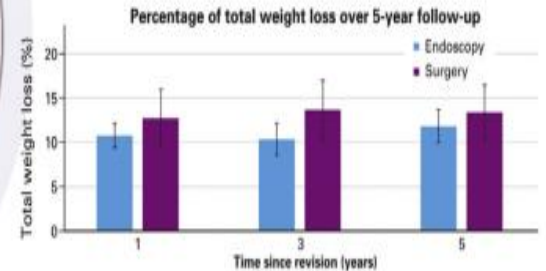
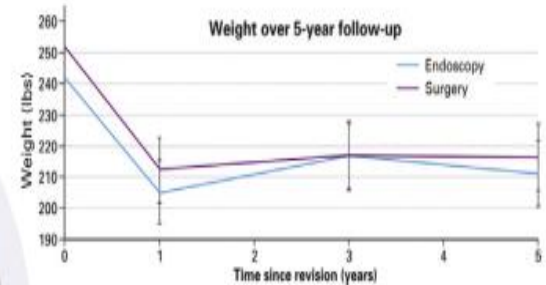
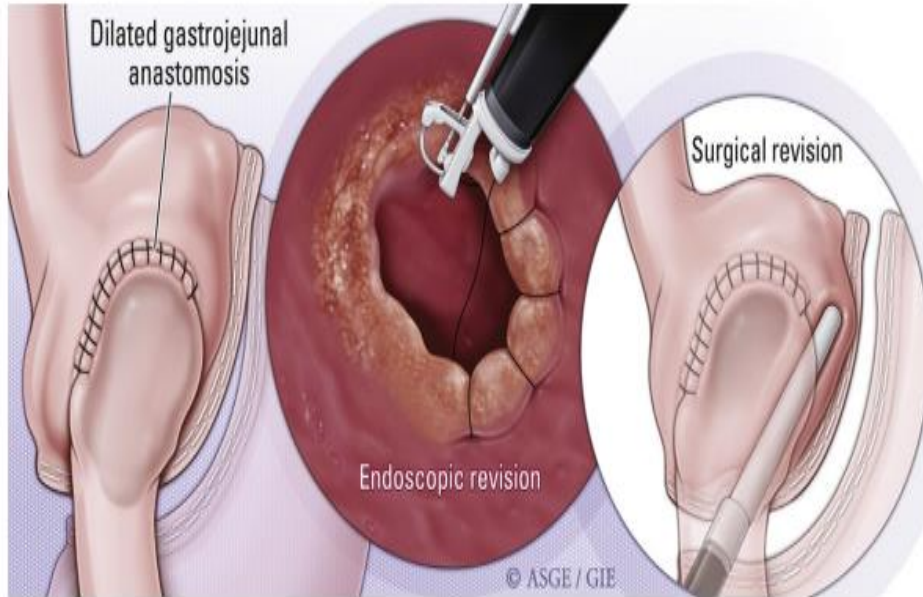
Combination with Obesity Management Medications



Combination with Obesity Management Medications



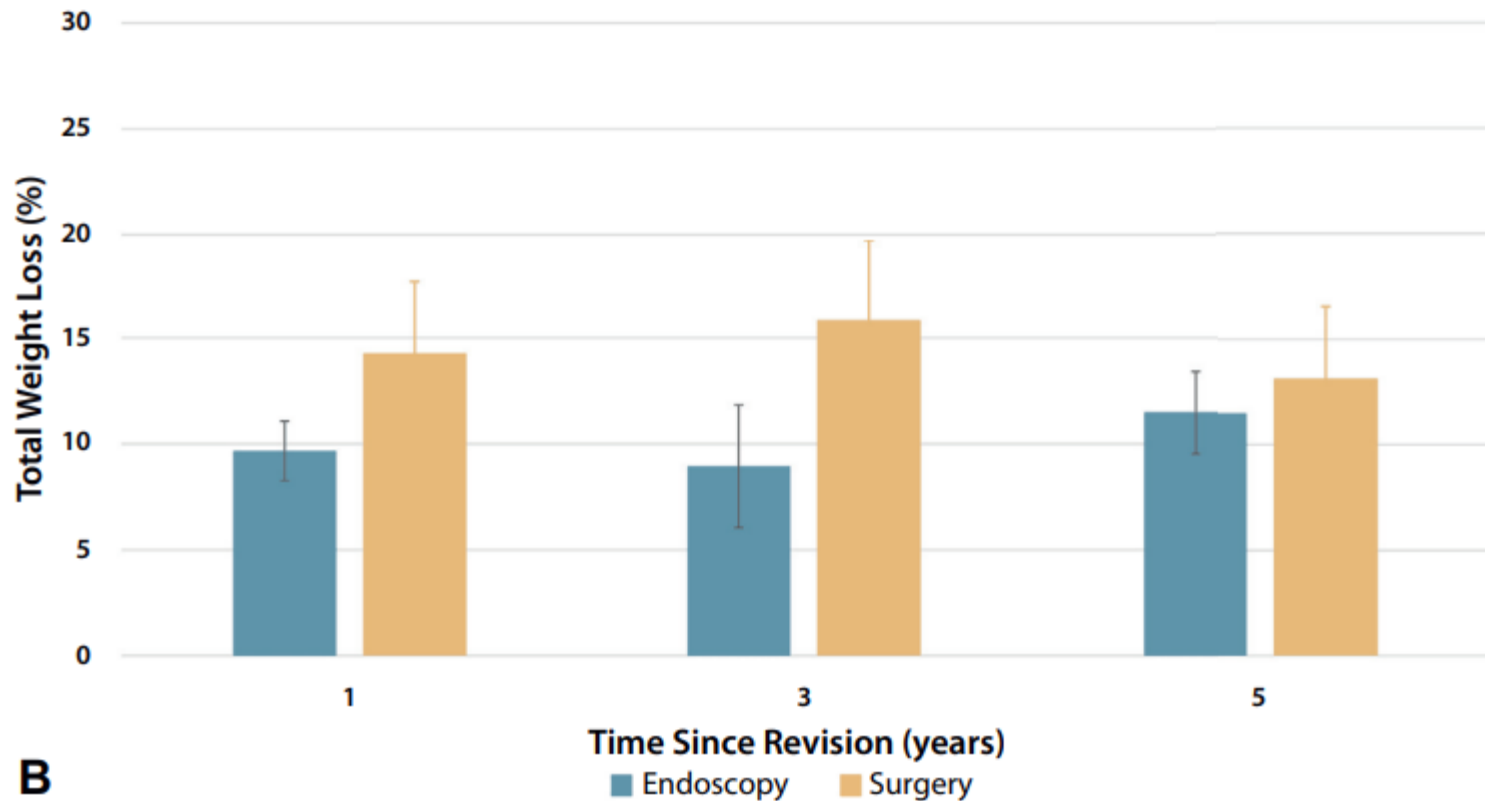
Compared with Surgical Revision of GJ Stoma



Compared with Surgical Revision of GJ Stoma

- 31 ENDO vs 31 matched SURGICAL
- Baseline characteristics were similar between groups
- The AE rate in the ENDO group (6.5%) vs. SURG group (29.0%) P= .043)
- The SAE was 0% in the ENDO group vs. (9.4%) SURG group (p= 0.02)
- There was no significant difference in weight loss at 1, 3, and 5 years

Percentage of Total Weight Loss Over 5-year Follow-up



B



2

After Laparoscopic Sleeve Gastrectomy

How does the Sleeve Gastrectomy Work?

New Insights

Changes in Time of Gastric Emptying After Surgical and Endoscopic Bariatrics and Weight Loss: A Systematic Review and Meta-Analysis



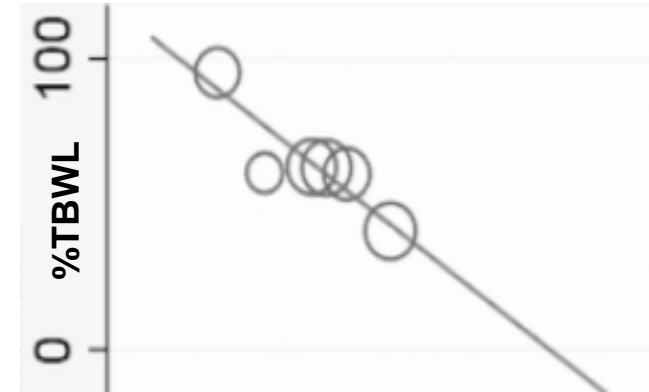
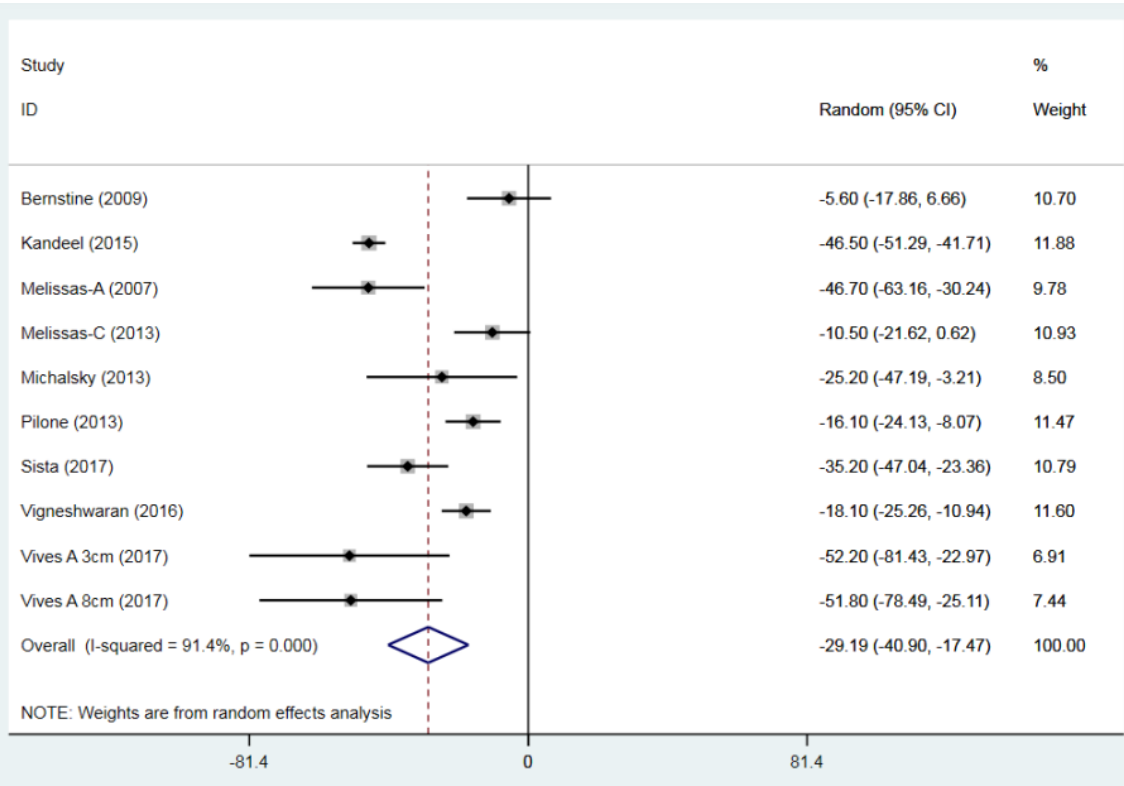
Eric J Vargas ¹, Fateh Bazerbachi ¹, Gerardo Calderon ¹, Larry J Prokop ²,
Victoria Gomez ³, M Hassan Murad ⁴, Andres Acosta ¹, Michael Camilleri ⁵,
Barham K Abu Dayyeh ⁶

Affiliations + expand

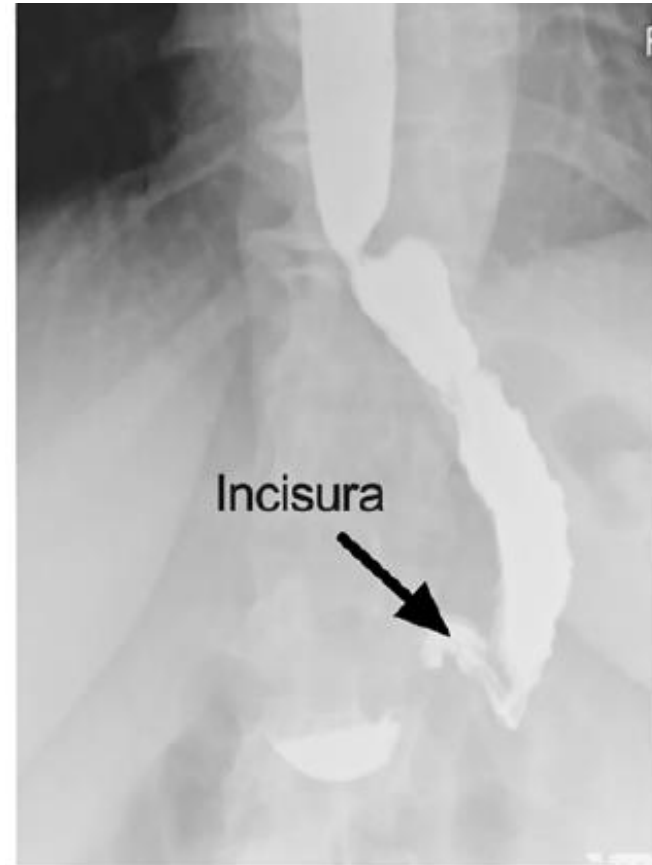
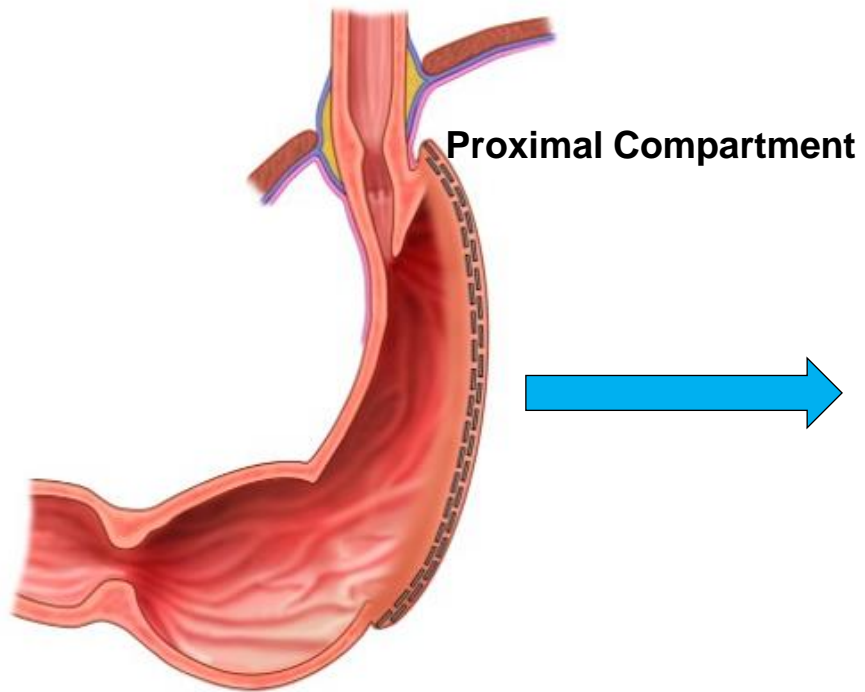
PMID: 30954712 PMID: PMC6776718 DOI: 10.1016/j.cgh.2019.03.047

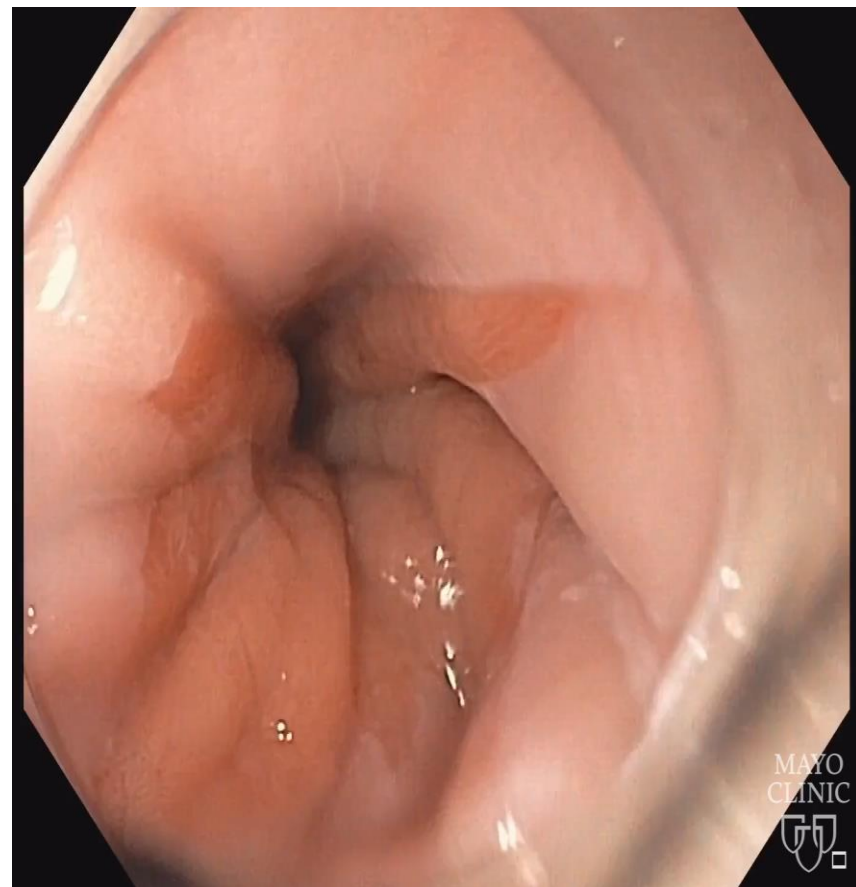
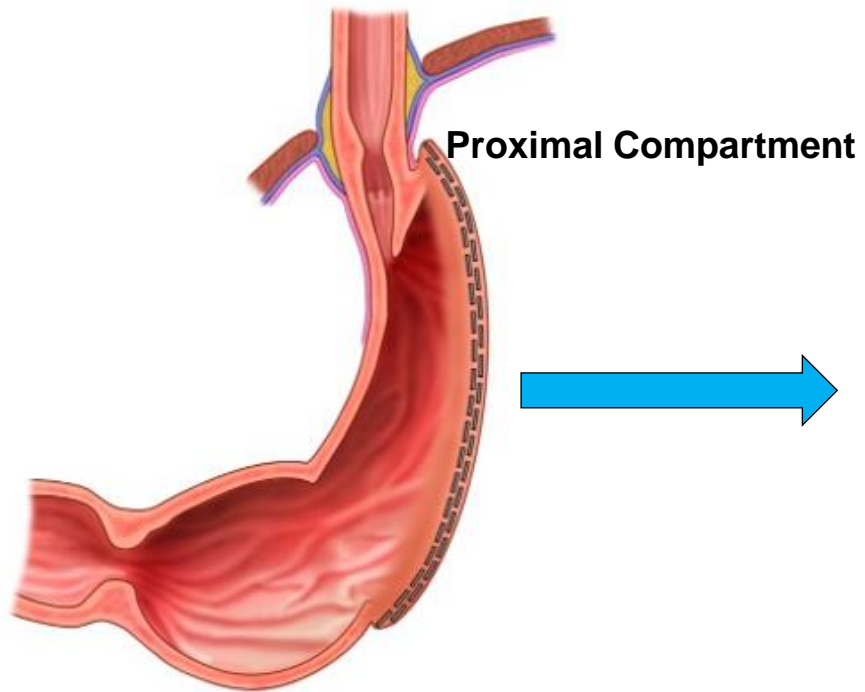
How does the Sleeve Gastrectomy Work?

Accelerates Gastric Emptying



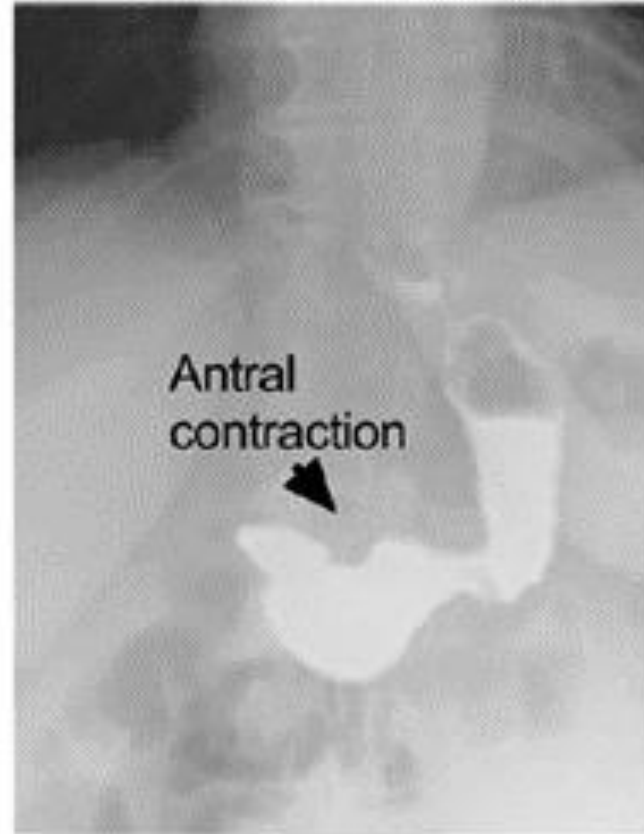
T1/2 (min)

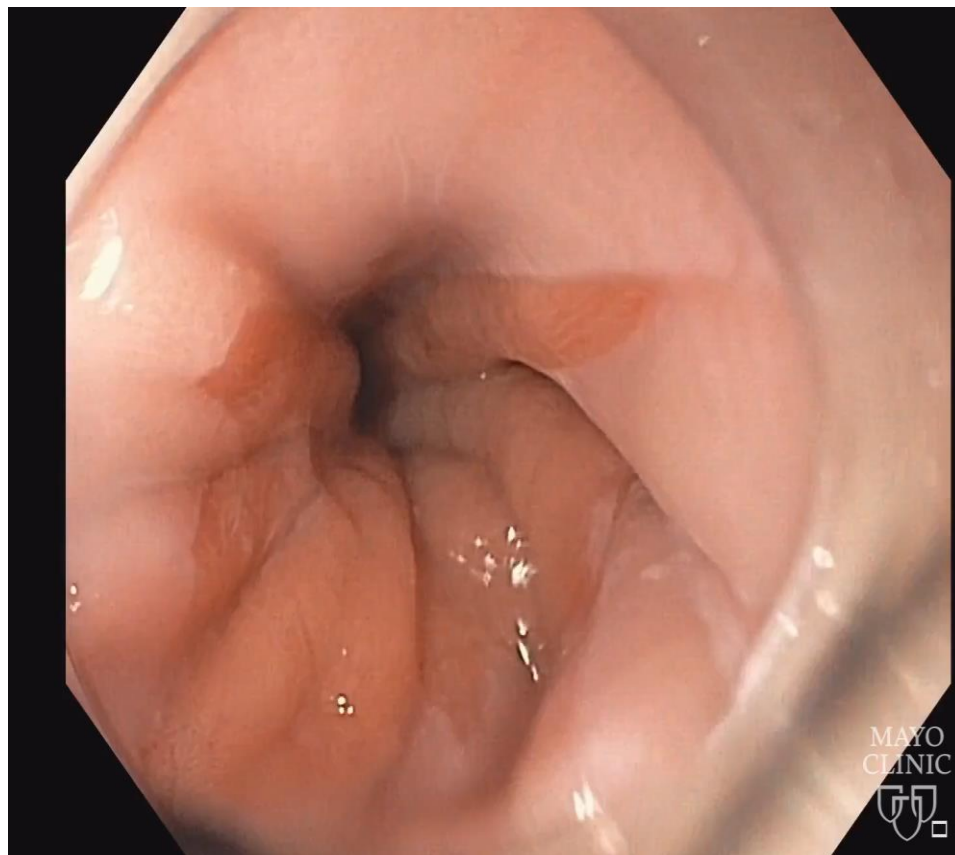
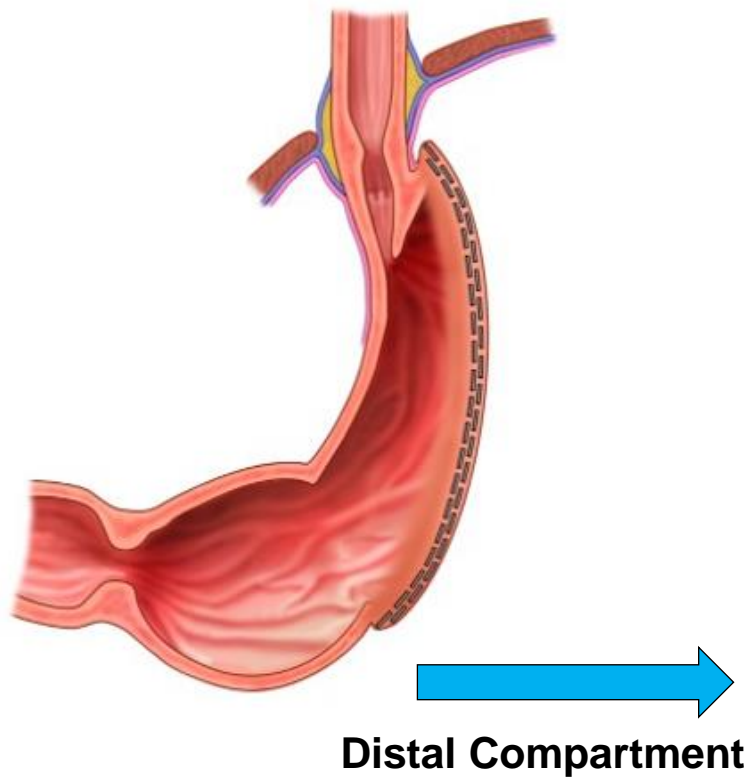




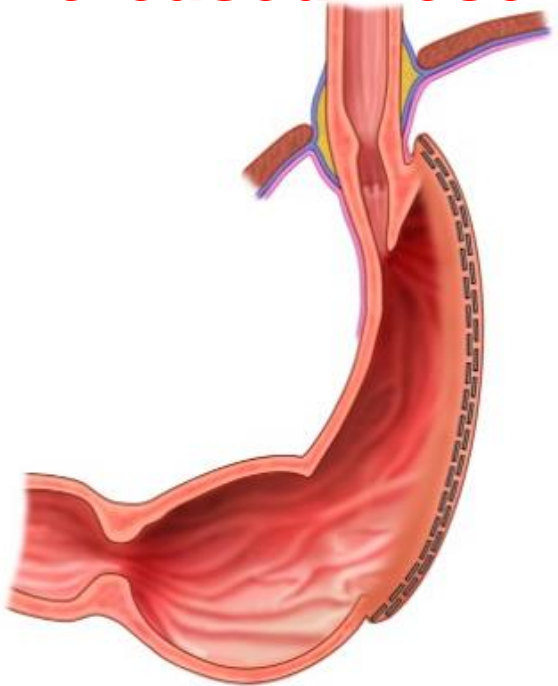


Distal Compartment





Phenotype 1 for Weight Recurrence: Increased Reservoir Capacity



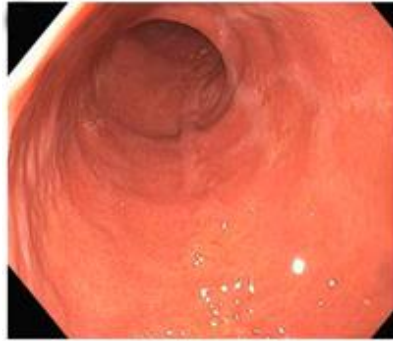
Proximal Compartment Dilates



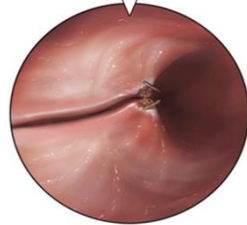
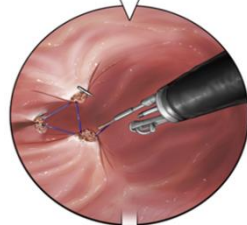
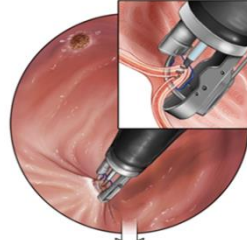
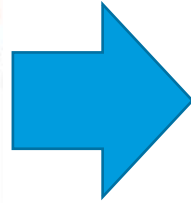
Normal Size Antrum



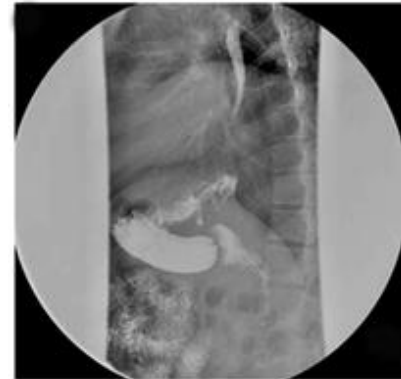
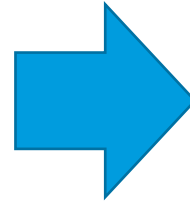
Revisional Endoscopic Sleeve Gastroplasty (R-ESG)



Before R-ESG

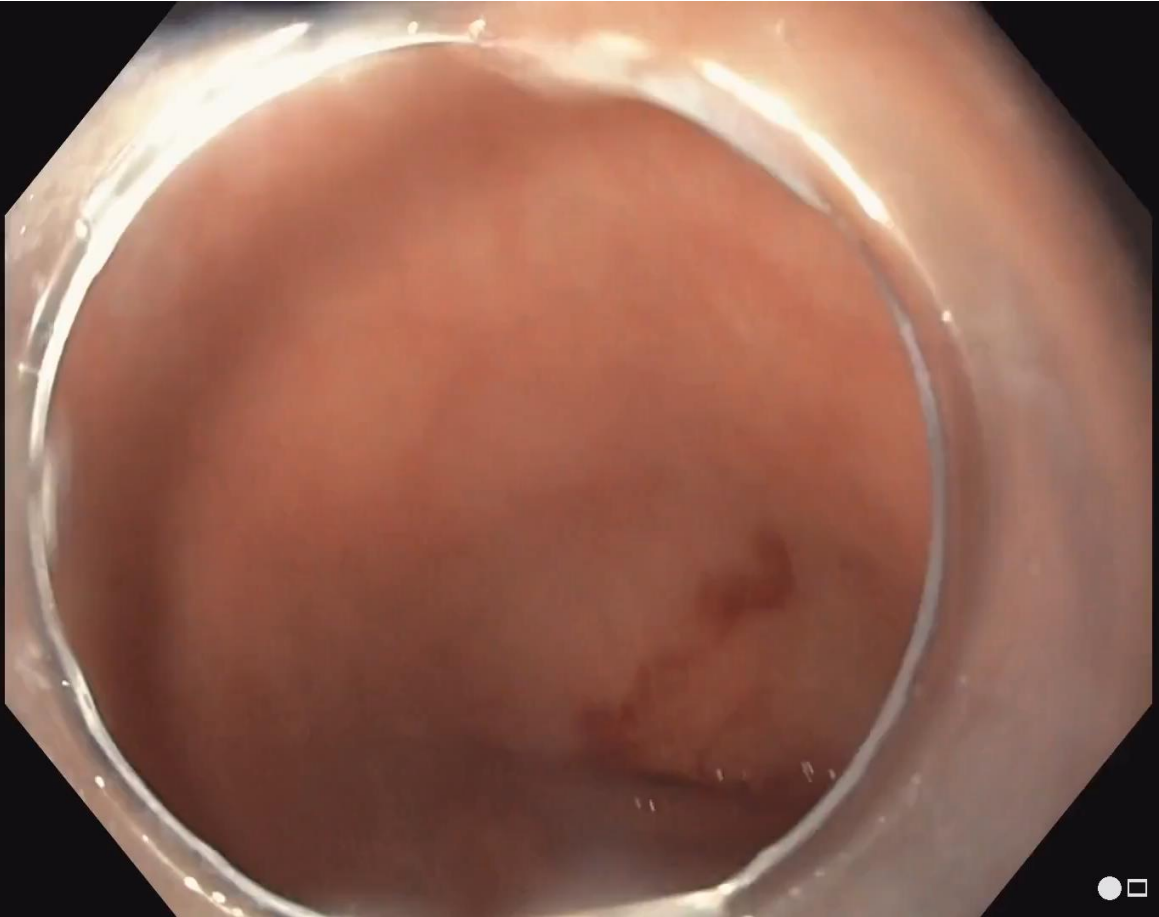


R-ESG: full-thickness endoscopic suturing



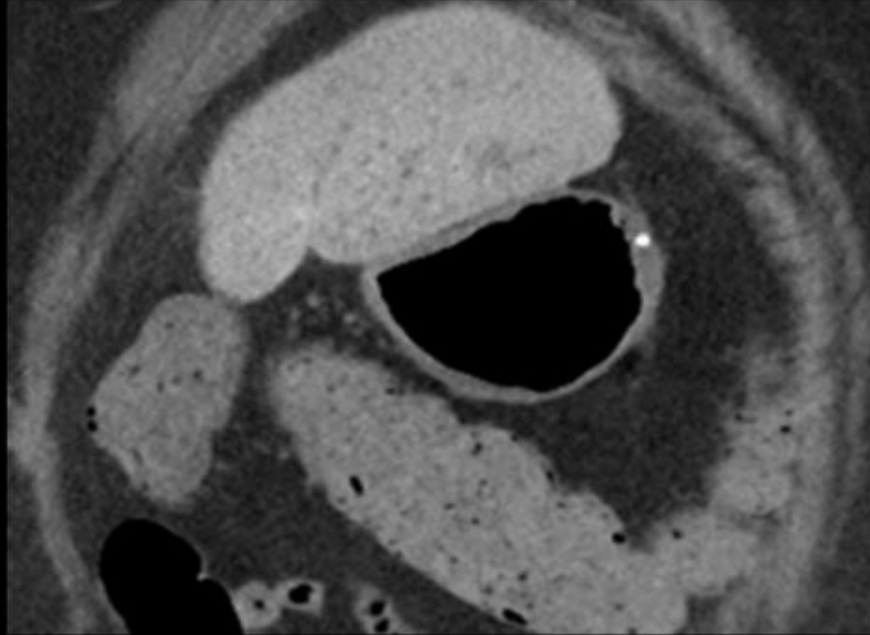
4 weeks after R-ESG

Revisional Endoscopic Sleeve Gastroplasty (R-ESG)

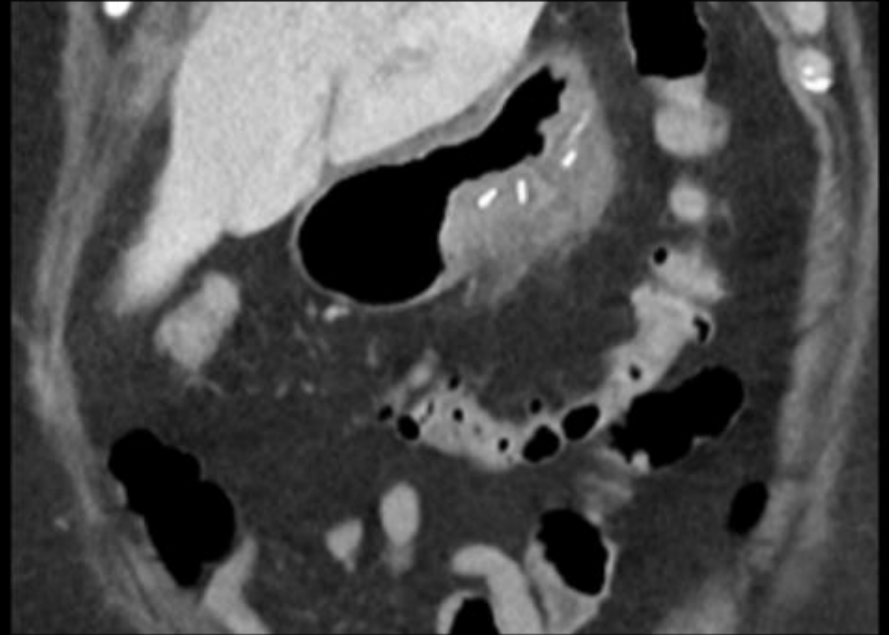


Phenotype 2 for Weight Recurrence:

Antral dilation with weakening of antral pump (loss of acceleration)



Before



After

Revisional endoscopic sleeve gastropasty of laparoscopic sleeve gastrectomy: an international, multicenter study



Daniel B Maselli¹, Aayed R Alqahtani², Barham K Abu Dayyeh¹, Mohamed Elahmedi², Andrew C Storm¹, Reem Matar¹, Jose Nieto³, Andre Teixeira⁴, Maryam Al Khatry⁵, Manoel Galvao Neto⁶, Vivek Kumbhari⁷, Eric J Vargas¹, Veeravich Jaruvongvanich¹, Manpreet S Mundi⁸, Ameya Deshmukh³, Mohamad I Itani⁷, Jad Farha⁷, Christopher G Chapman⁹, Reem Sharaiha¹⁰

Conclusions

1- Not all weight recurrence after MBS is the same

2- Think before choosing the best approach:
Endoscopy + UGI + Motility Evaluation in Select
Patients

3- Endoscopy offers the flexibility to personalize the
therapeutic approach

QUESTIONS

