

Endoscopy for complications & weight gain

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MIS Foregut / Bariatrics / Advanced Endoscopy

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Conflict of Interest

Consultant: Boston Scientific; J&J



Outline

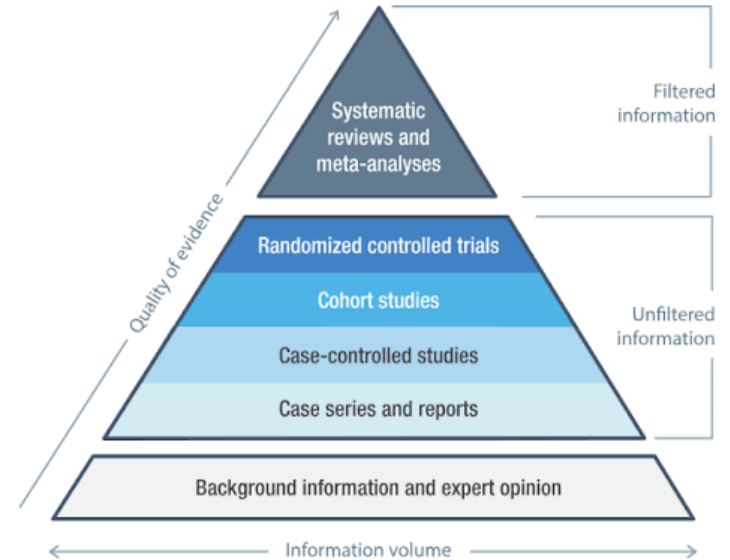


Overview

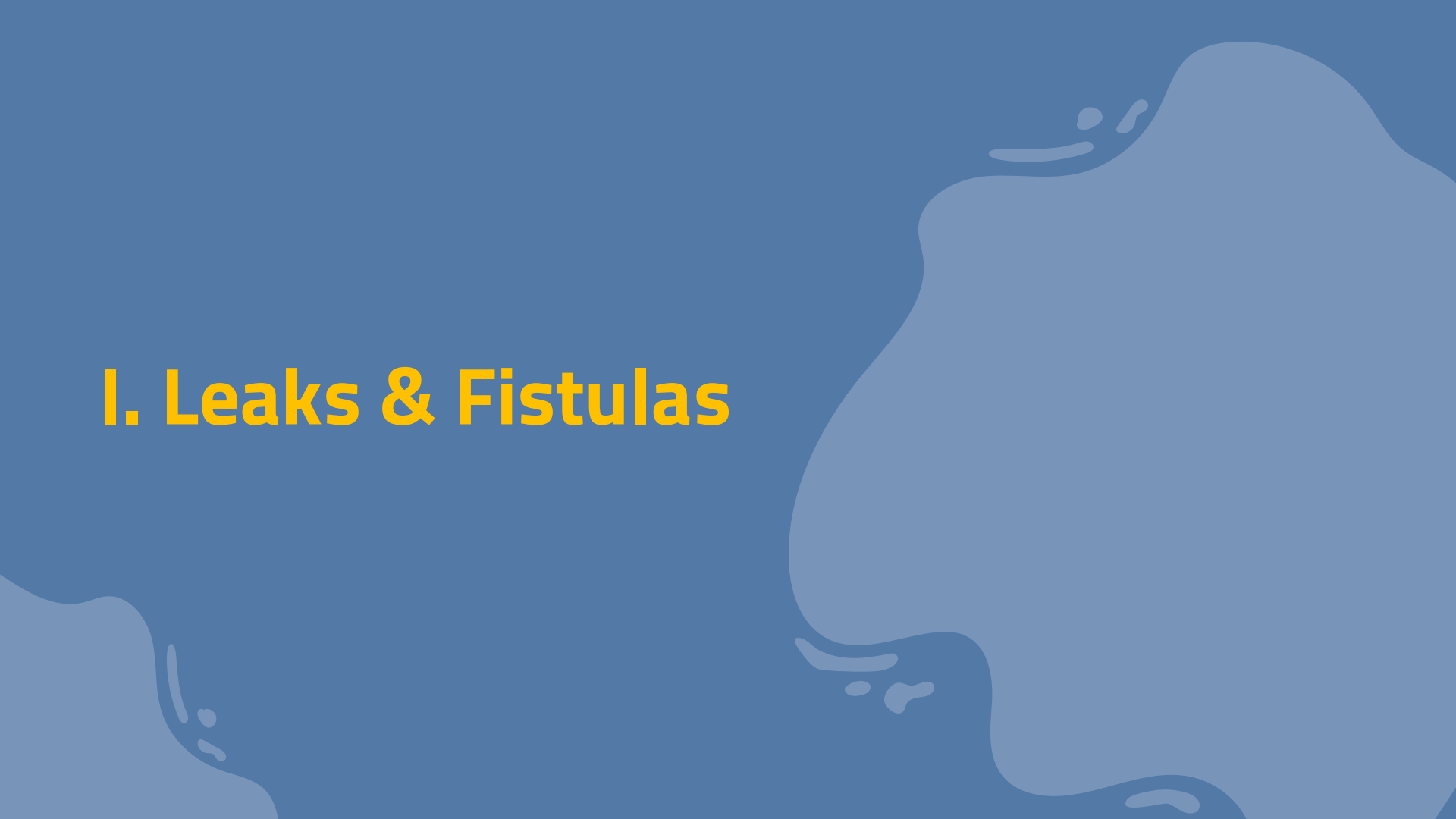
- Leak & Fistulas
- Strictures
- Weight regain
- Novel endoscopic options



Disclosure

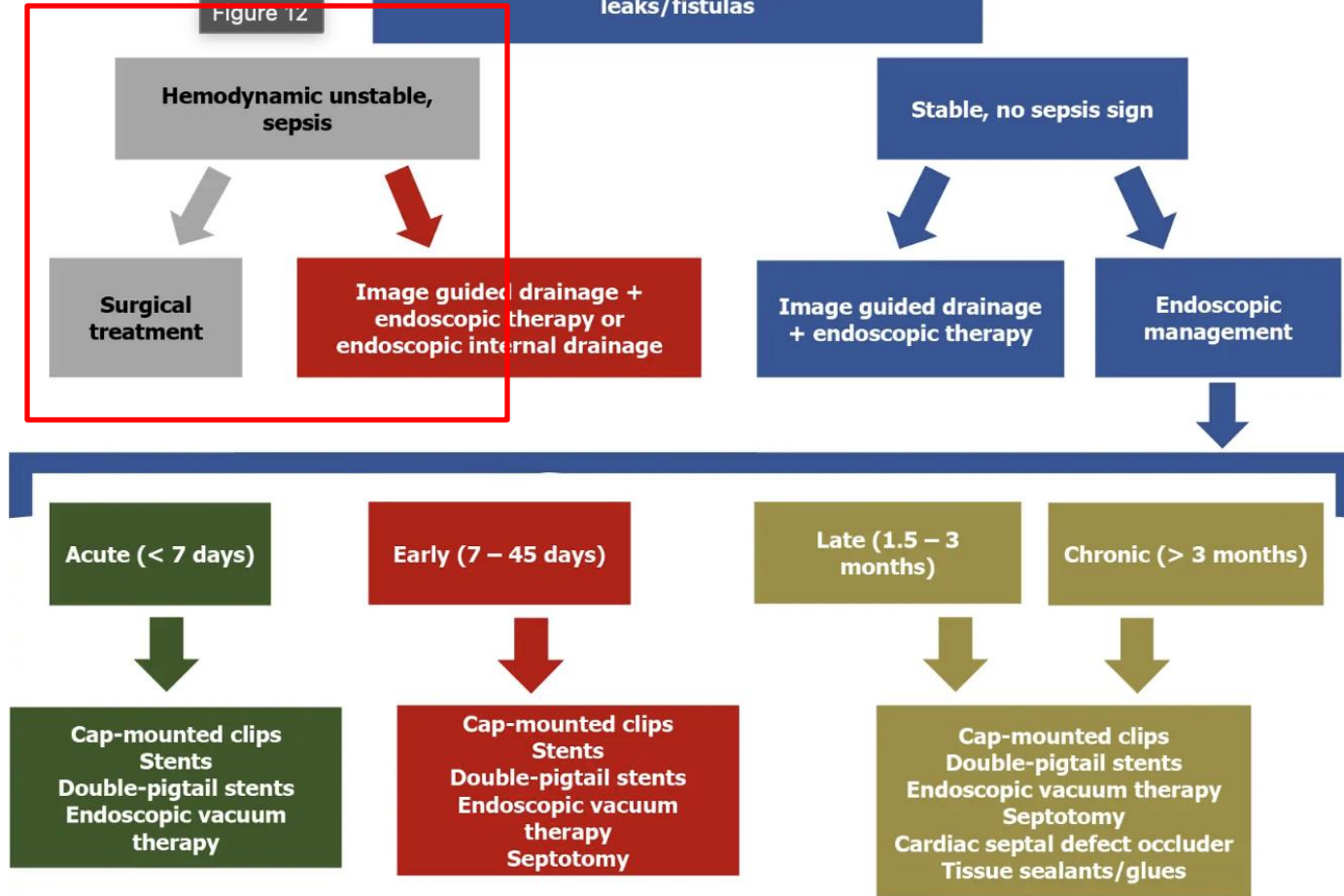


I. Leaks & Fistulas

The background is a solid medium blue. It features several large, organic, light blue shapes that resemble water droplets or clouds. These shapes have white highlights and shadows, giving them a three-dimensional appearance. The highlights are small, curved lines or dots, while the shadows are slightly darker blue areas within the light blue shapes.

Endoscopic management of post-bariatric surgical leaks/fistulas

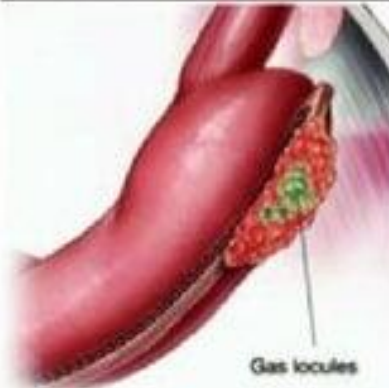
Figure 12



Class 1a Phlegmon associated with the staple line



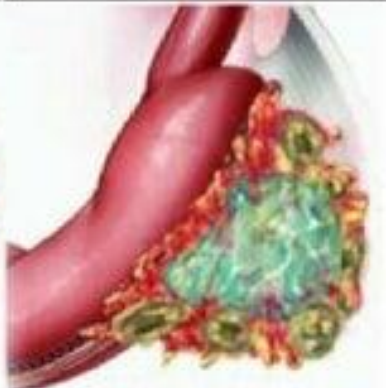
Class 1b Phlegmon with small localised locules of gas associated with the staple line



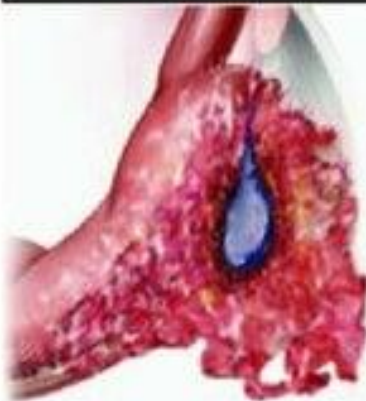
Class 2a Fluid collection with localised locules of gas



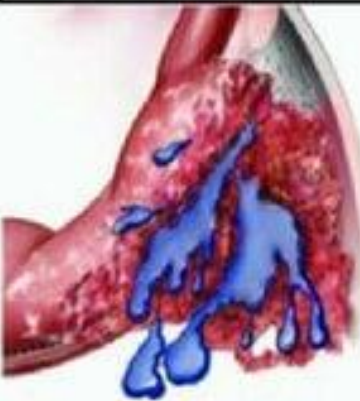
Class 2b Extensive fluid and gas collection



Class 3a Contained contrast leak



Class 3b Free intraperitoneal contrast leak



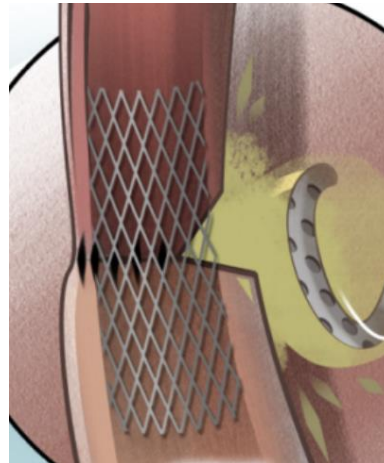
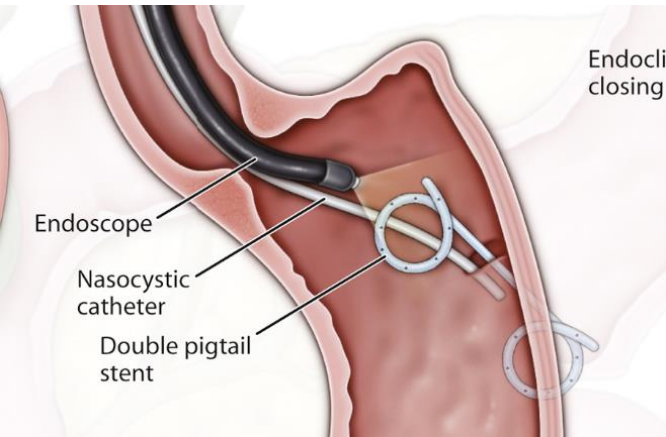
Class 4 Chronic fistula





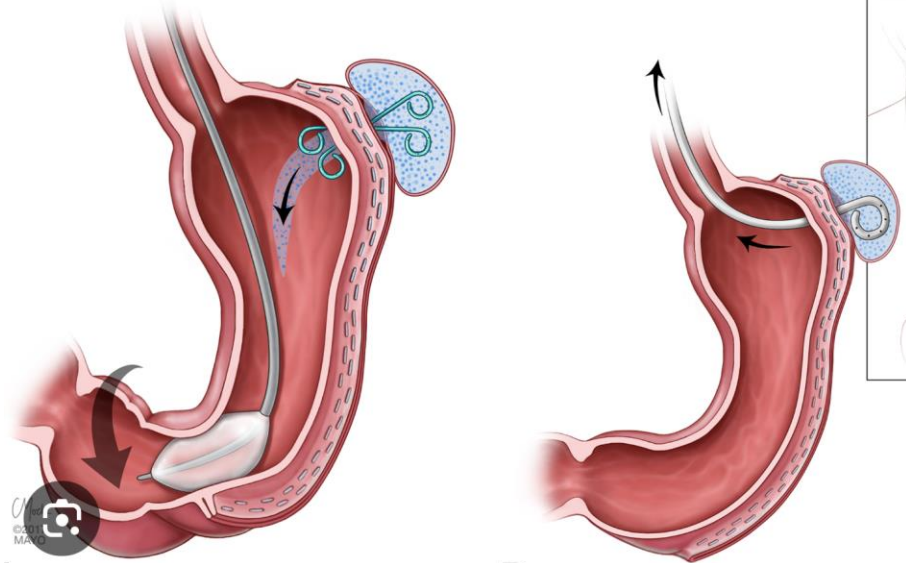
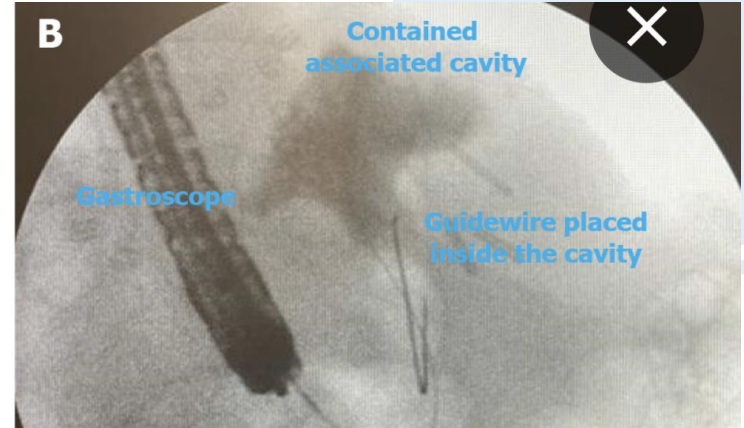
Principle of endoscopic management

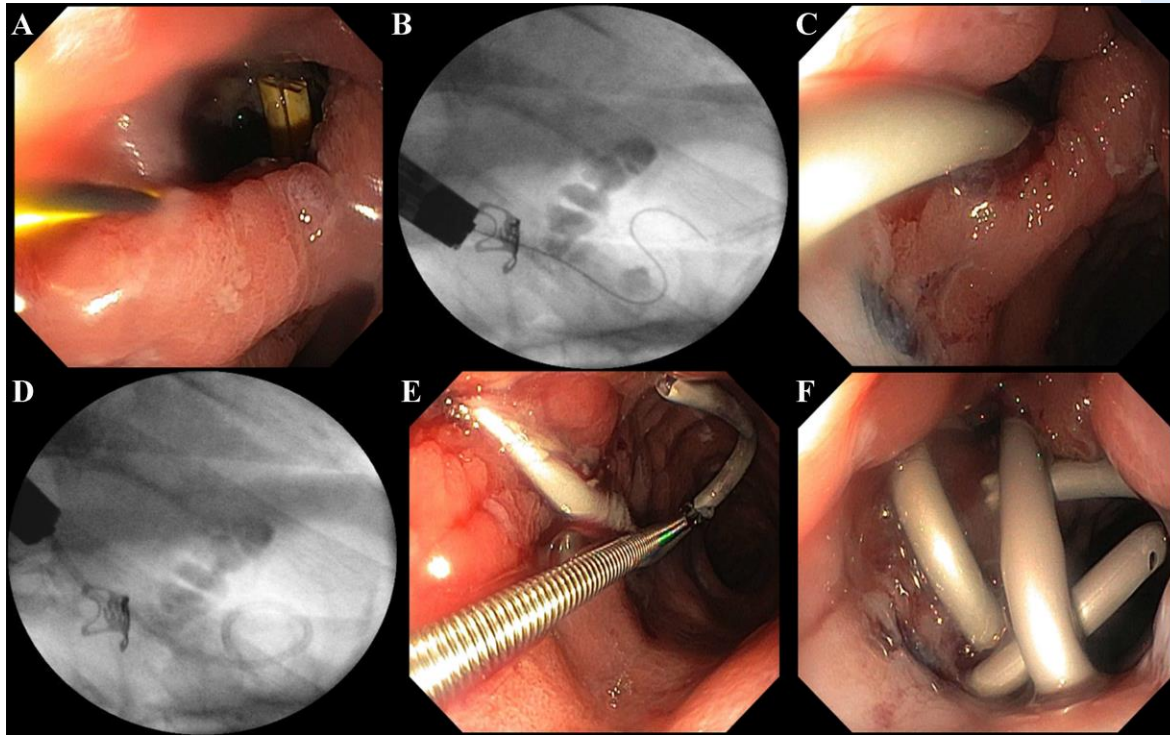
- 1) Drainage
- 2) Diversion
- 3) Closure



"Internal Drainage"

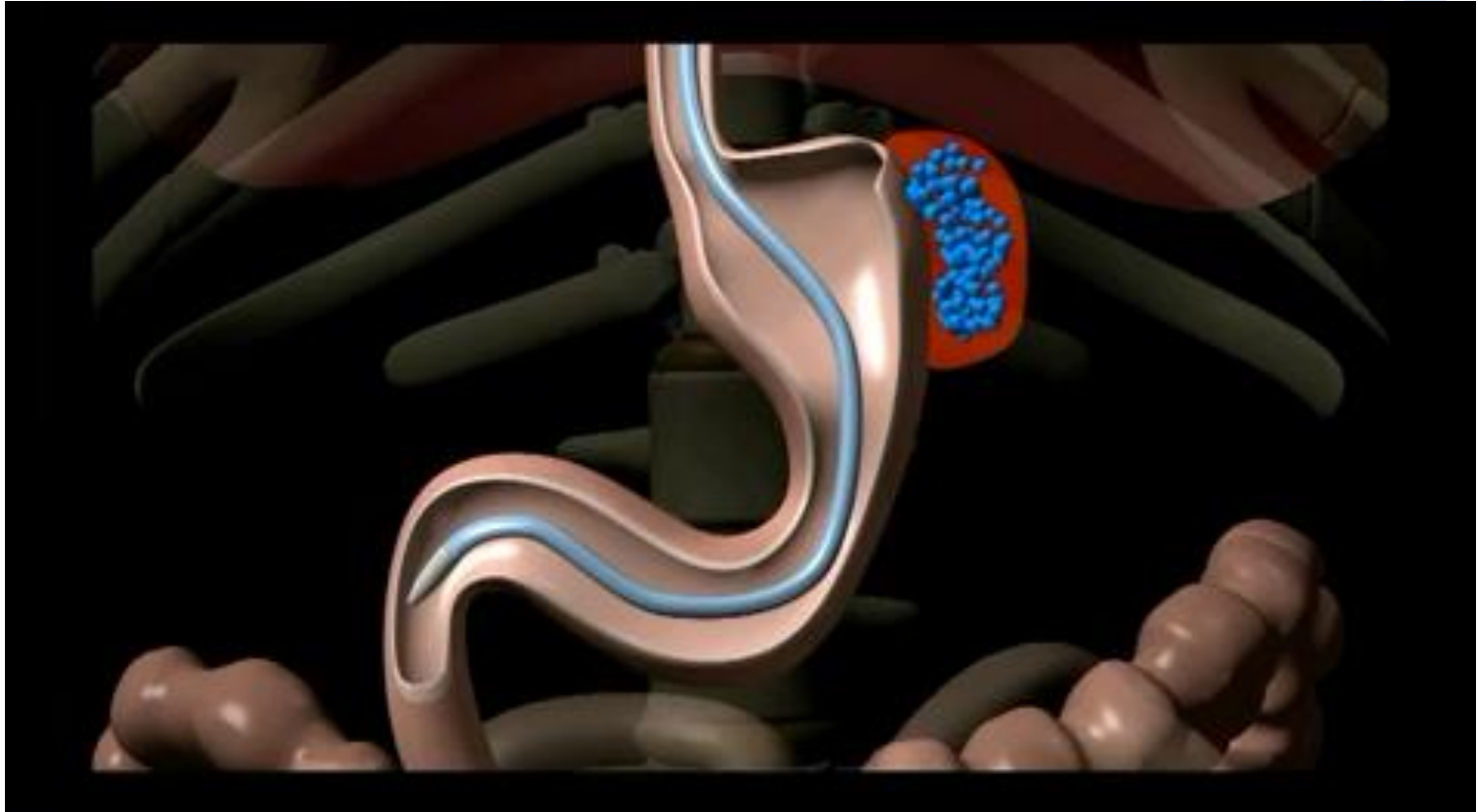
- Re-epithelialization
- Promote "inward" drainage into gastric lumen
- Exchange q4-6 weeks
- 70-85% success rate





- 85% success rate; healing achieved around 3-4 months (N=617 series; FU 19.5months)

"Diversion"

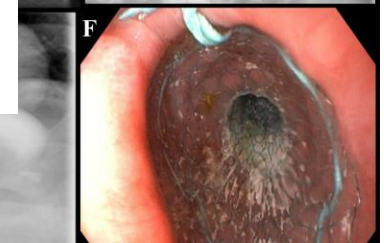
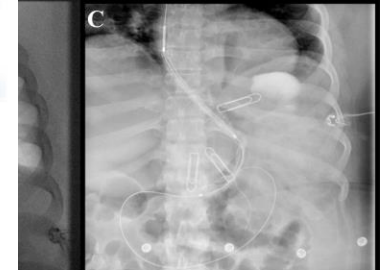
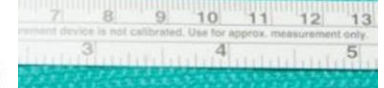
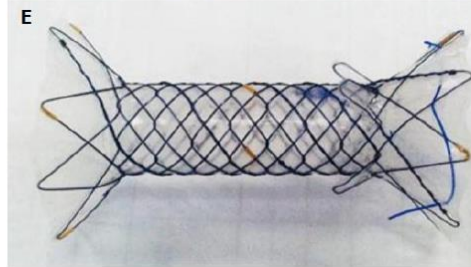
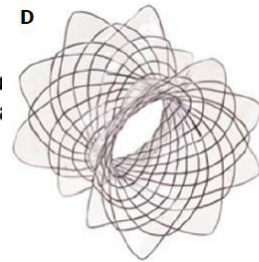
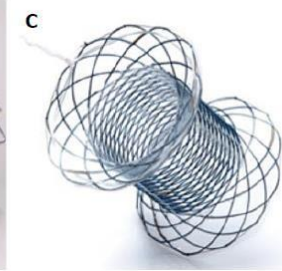
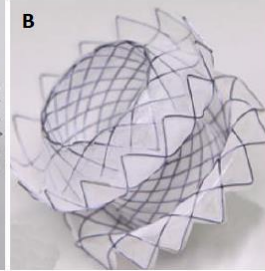
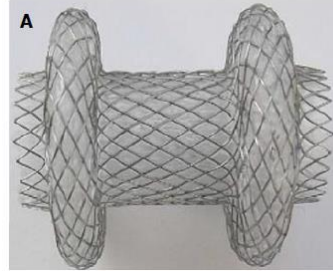




Partially Covered
Self-Expanding Metal Stent
(pcSEMS)



Full
Self-Expanding
Metal Stent



- ~92% success
- 18-23% **stent migration**

EndoVAC therapy



- ~85% success rate for UGI/anastomotic leaks
- ~50% for chronic fistulas

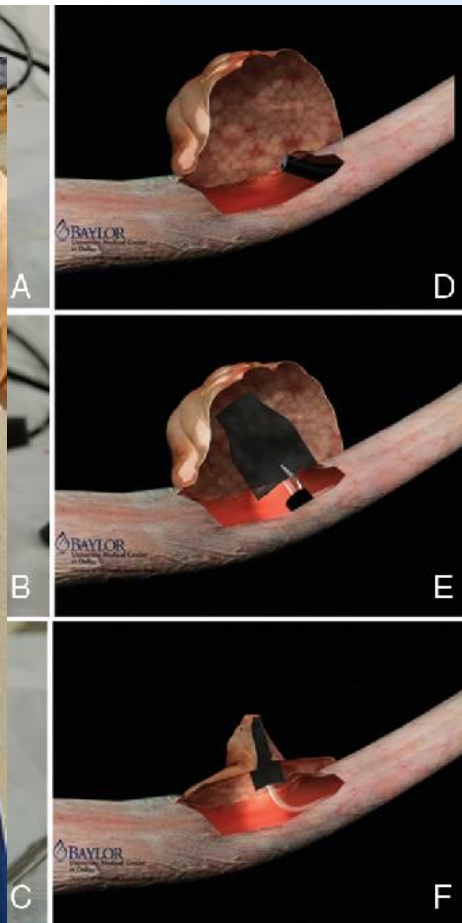
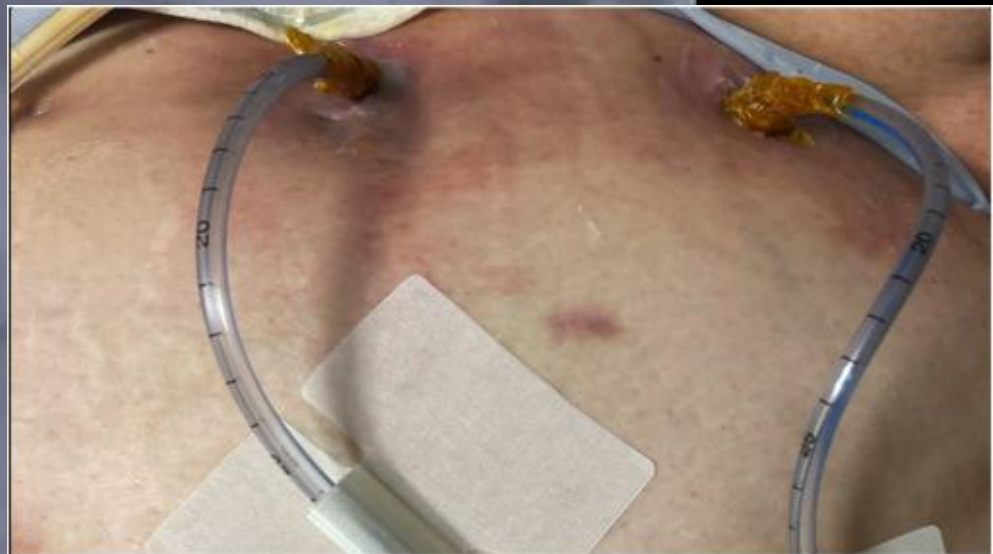
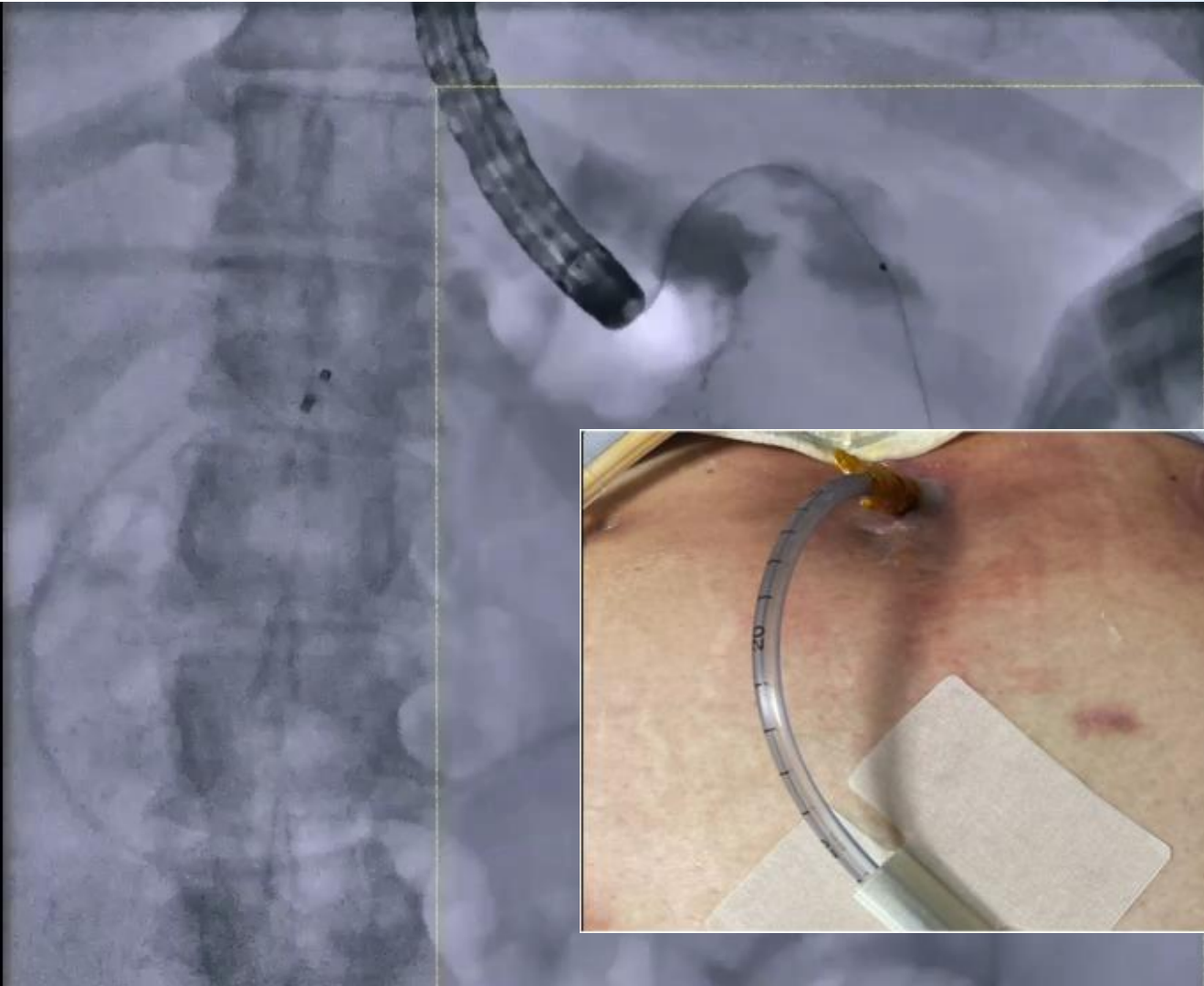
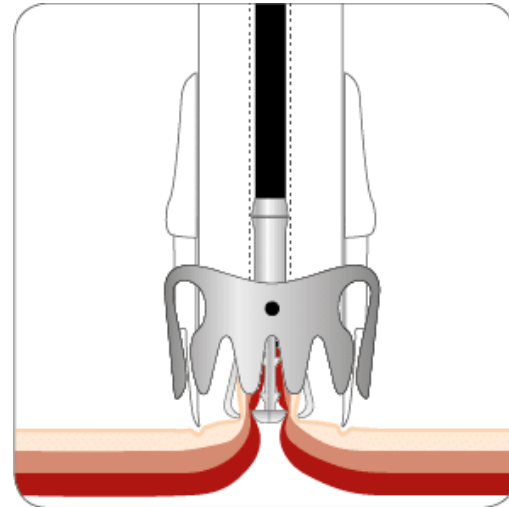
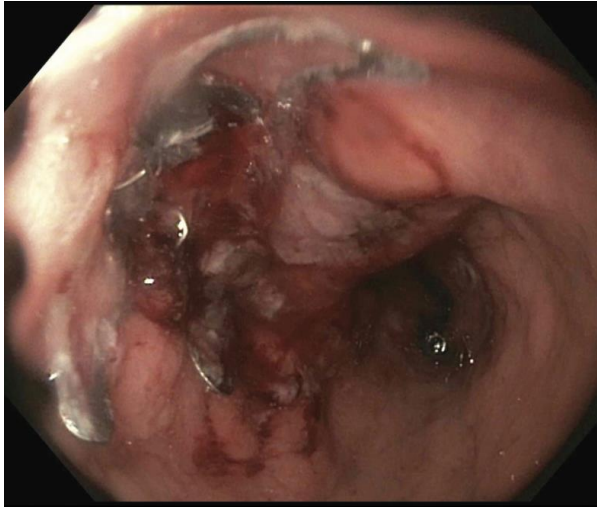


Fig. 1 Creation of the endosponge includes cutting the granu-



"Closure"

- Clips (Over the scope clips)
- <2cm: 87% for leaks; 25-40% chronic fistula
- Endoscopic suturing? (less ideal due to location/size)



Combo therapy

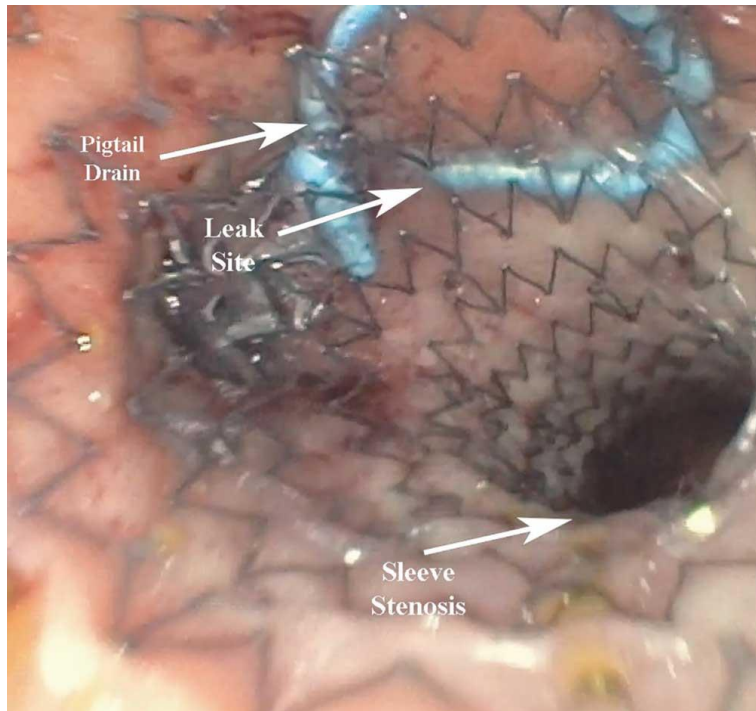
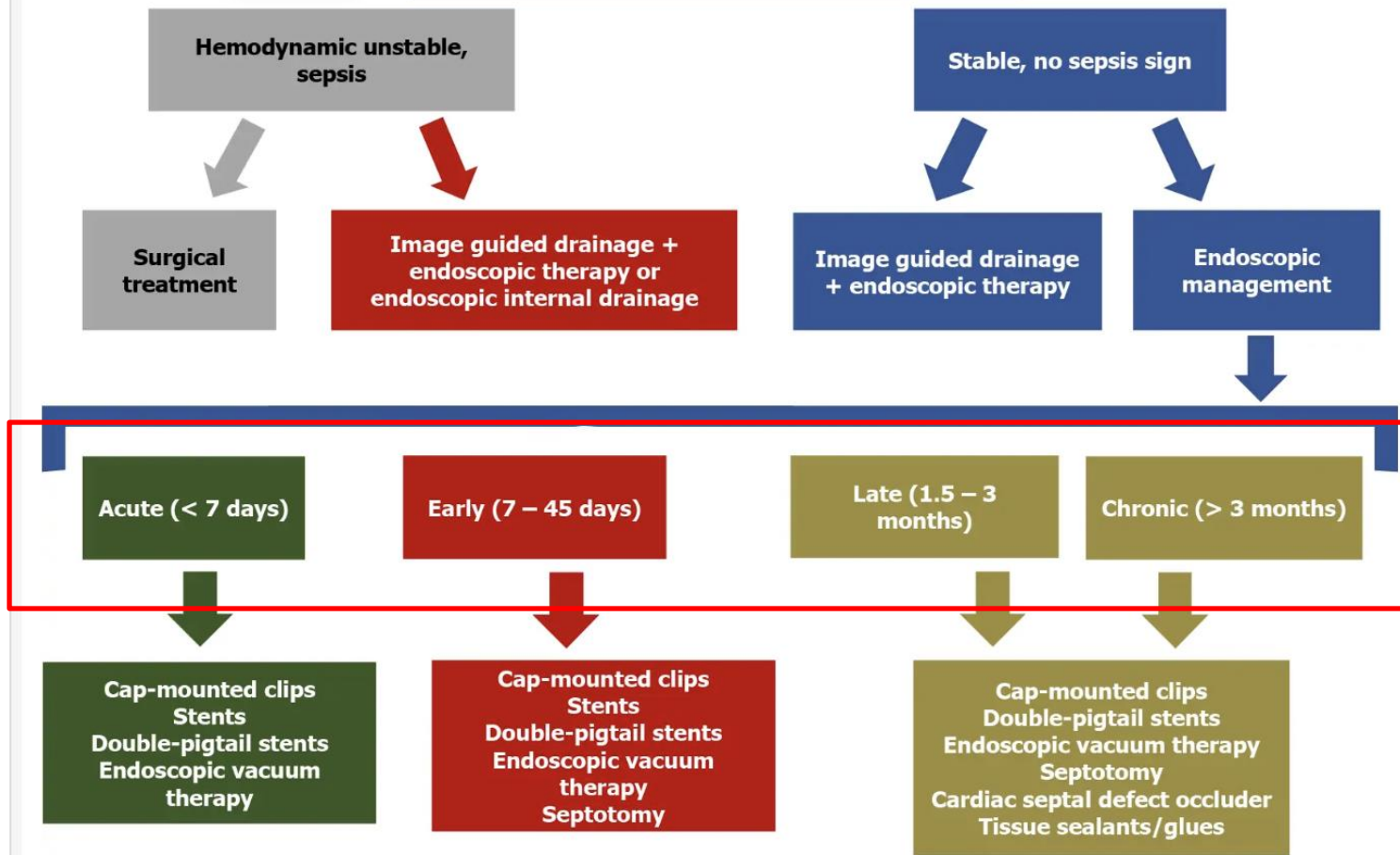


Figure 12

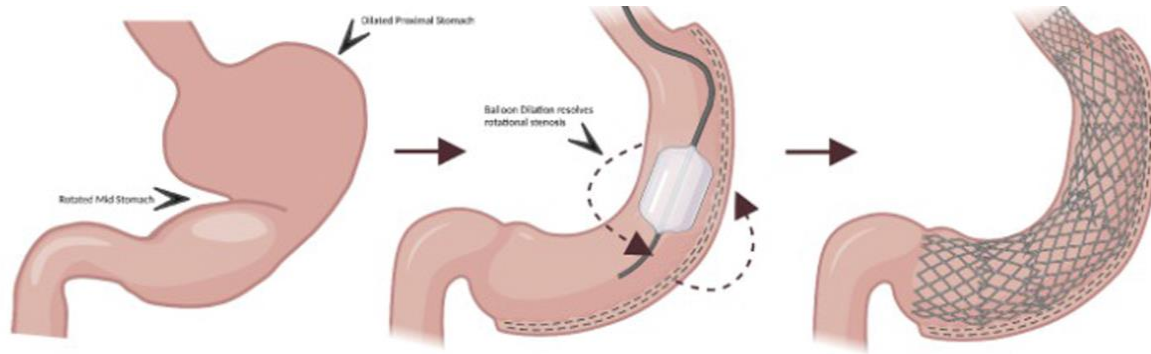
Endoscopic management of post-bariatric surgical leaks/fistulas



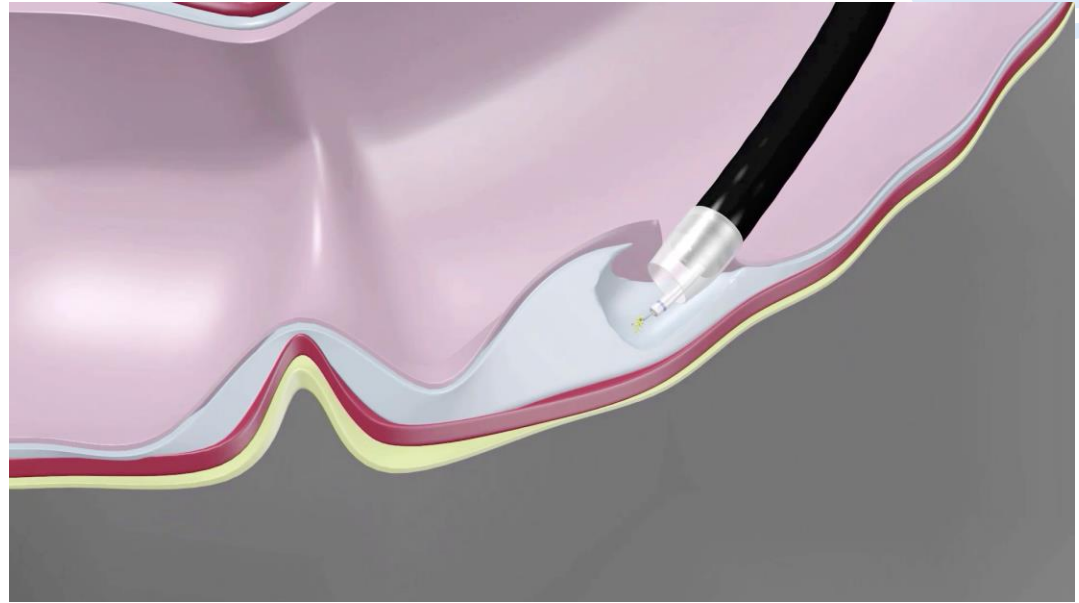
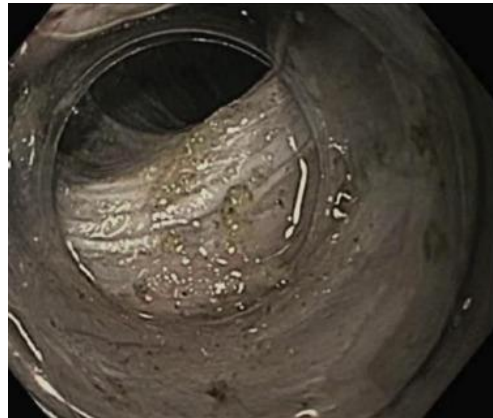
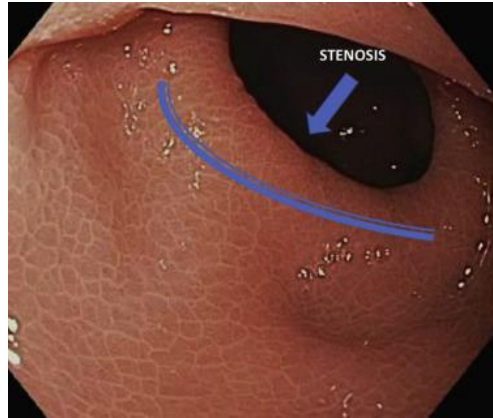
II. Stenosis / Strictures

Sleeve stenosis/stricture

- **Not all strictures are the same** – consider location, torsion, etiology, degree of symptoms
- **Beware of quoted efficacy** of balloon dilation, SEMS, etc. for sleeve stenosis/stricture (40-80%)

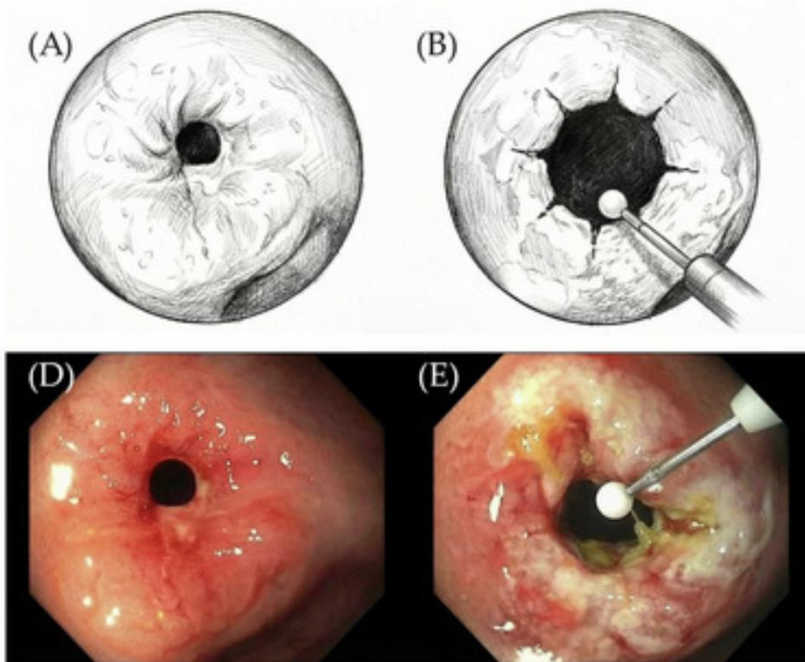


Submucosal tunnelling



Anastomotic stricture

- Options range from balloon dilation, stricturoplasty, SEMS
- Determine index method of anastomosis creation (EEA, handsewn, linear etc.)



- N=25
- 71.4% success >90d

III. Weight regain

Weight recidivism

- **Common** in both SG (up to 76%) and RYGB (up to 30%) after 5-10 years from index procedure
- **Surgical non-response:** <10% TWL at 1 year
- **Recurrent weight gain:** >25% regain from nadir



Surgery for Obesity and Related Diseases 22 (2026) 753–761

SURGERY FOR OBESITY
AND RELATED DISEASES

Original article

International expert consensus on definitions and management of weight recurrence and suboptimal response after metabolic and bariatric surgery: a Delphi study

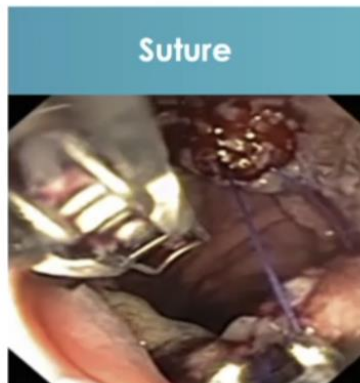
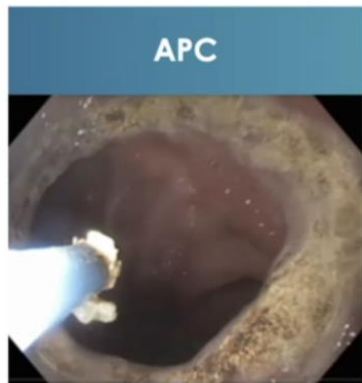
Mélissa V. Wills, M.D.^a, Sol Lee, M.D.^b, Valentin Mocanu, M.D., Ph.D.^a, Yung Lee, M.D.^a,
Paththarasai Kachornvitaya, M.D.^a, Xinlei Zhu, M.D.^a, Nasreen Alfaris, M.D., M.P.H.^c,
Laura Andromalos, M.S., R.D.^d, Caroline Apovian, M.D.^e, Estuardo Behrens, M.D.^f,
Dieter Birk, M.D.^g, Luca Busetto, M.D., Ph.D.^h, Anita Courcoulas, M.D., M.P.H.ⁱ,
David Cummings, M.D.^j, Silvia Leite Faria, Ph.D., M.Sc.^k, Omar Ghanem, M.D.^l,
Sang-Moon Han, M.D., Ph.D.^b, Shahzeer Karmali, M.D., M.P.H.^m,
Lee Kaplan, M.D., Ph.D.ⁿ, Lilian Kow, M.B.B.S.^o,
Carel W. le Roux, M.B.Ch.B., Ms.C., Ph.D.^{p,q}, Kamal Mahawar, M.B.B.S., M.S.^r,
Khaled Gawdat, M.D., Ph.D.^s, Rodrigo Munoz, M.D.^t, Mario Musella, M.D.^u,
Abdelrahman Nimeri, M.D.^v, Mary O’Kane, M.Sc., R.D.^w, Mariano Palermo, M.D.^x,
Guillermo Riquelme-Lara, M.D.^y, Paolo Salsano, M.D., Ph.D.^z

Weight recidivism

- **Conversion of SG → RYGB or SADI/DS**
- **Conversion of RYGB → SADI/DS or distalization, etc.**
- **Surgical revision has more robust evidence base and long-term efficacy for weight loss**

Transoral outlet reduction (TORe)

- Endoscopically reduce the diameter of "dilated" GJ anastomosis with endoscopic suturing

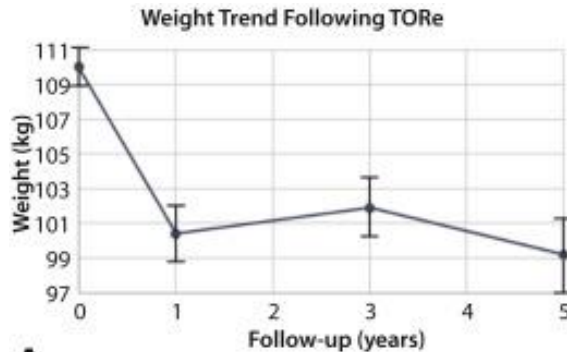


Procedural Considerations

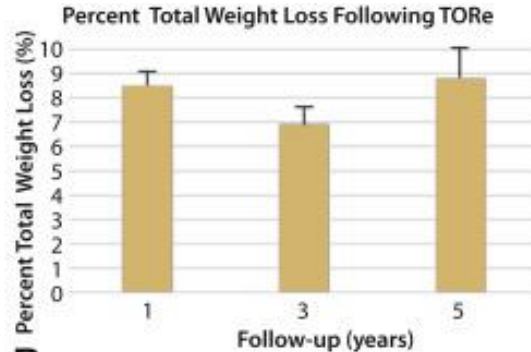
- Objective: Reduce outlet size to 6-8mm
- A variety of suture patterns may be used to achieve this objective
- May be tailored given patient specific anatomy
- Diagnostic scope should not be able to pass once cinched
- CRE (with wire) balloon inflated to 6-8mm to calibrate final diameter (I size to 6mm)
- Shorten and narrow pouch if technically feasible

Transoral outlet reduction (TORe)

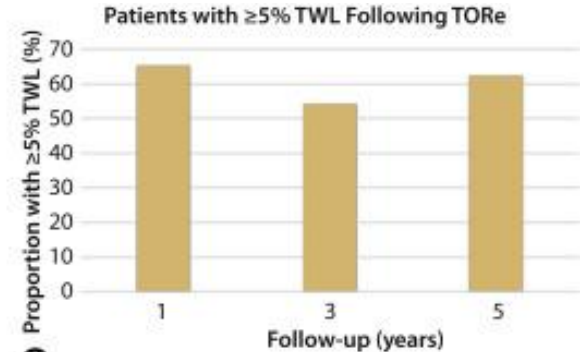
- Variable literature on efficacy
- 1 year: ~8% TWL
- 3 year: ~7% TWL
- **5 year: ~8% TWL (~40% had adjunct OMMs)**



A



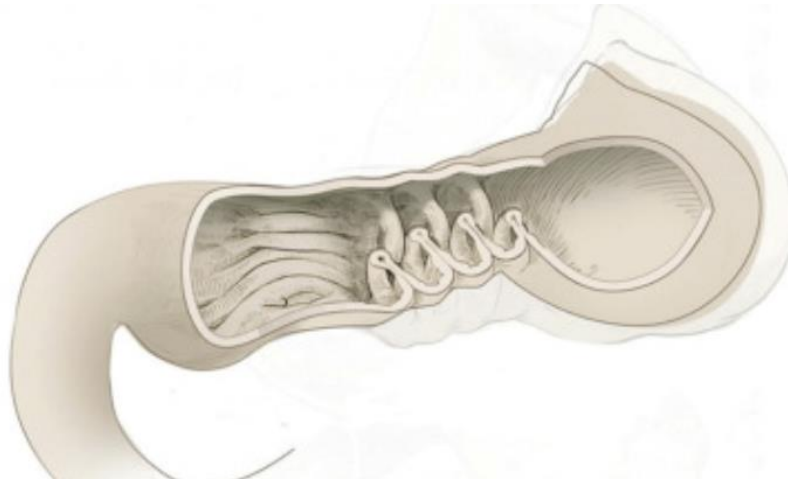
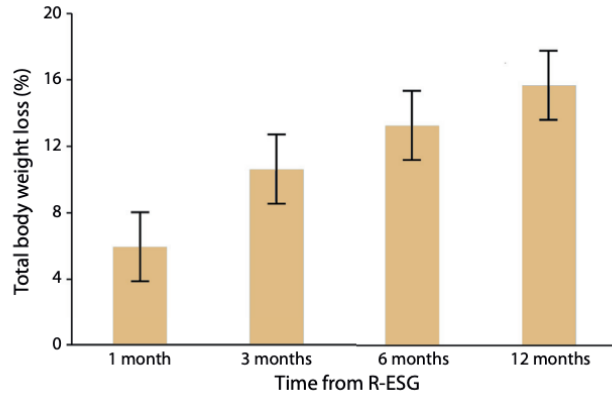
B



C

Revisional ESG

- “sleeve in sleeve”
- n=82 (9 centers, Maselli et al)
- TBWL ~10% at **12 months** (~18% for patients with OMM + R-ESG)

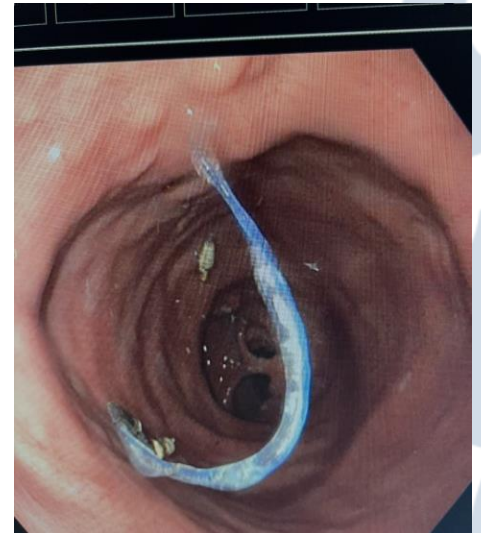


Limits of endoscopic interventions

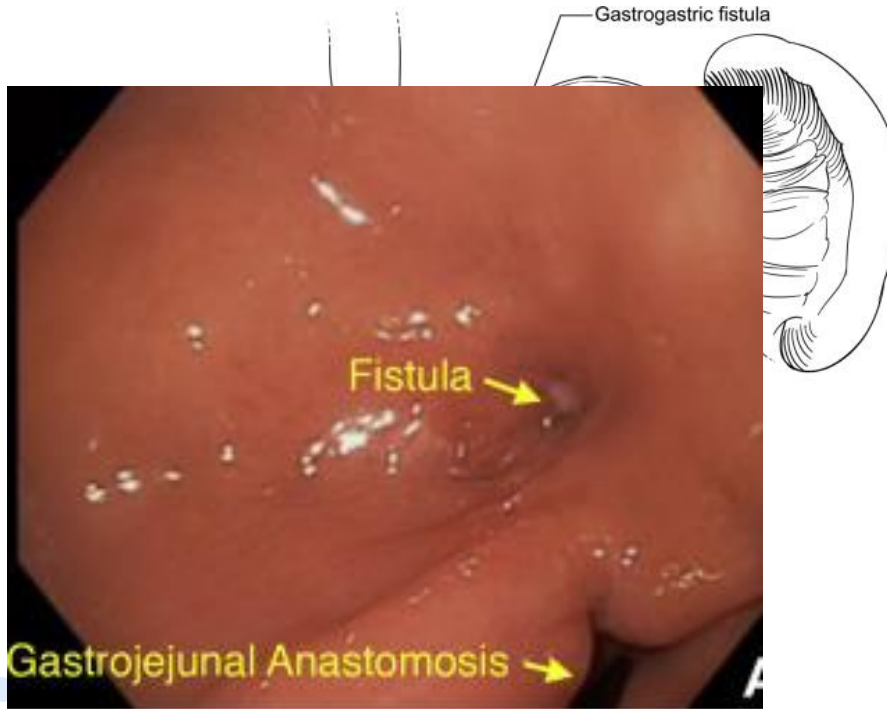
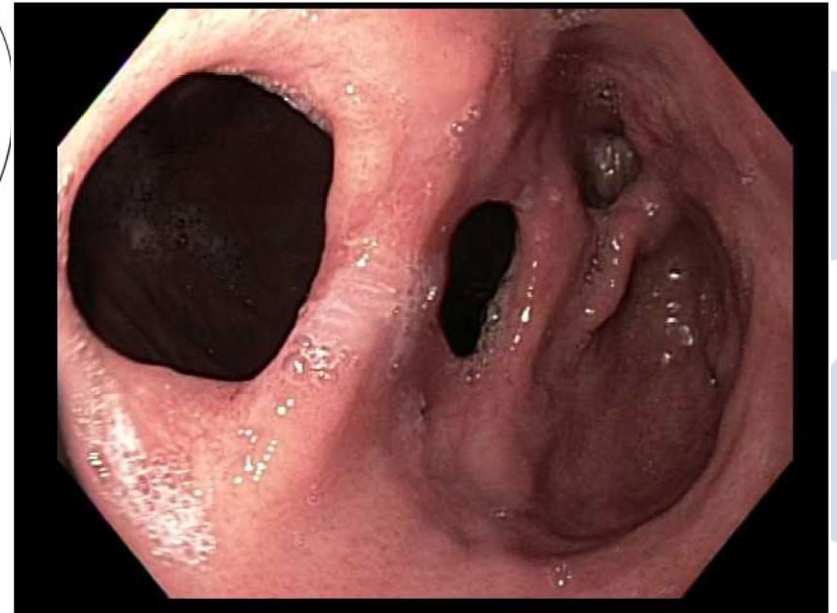
- **Surgery addresses not only weight regain**, but index bariatric procedure specific complications
- At what point does metabolic benefit occur?
- Discuss all options with the patients – is the **goal** lower weight loss and **avoid surgery** and its complications vs. better weight loss + metabolic benefits after **revisional surgery**?

Limits of endoscopic interventions

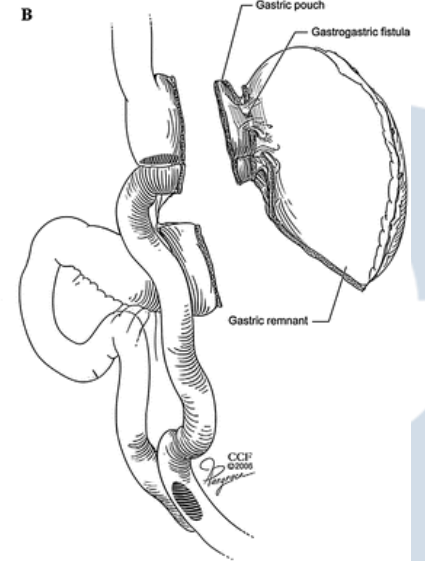
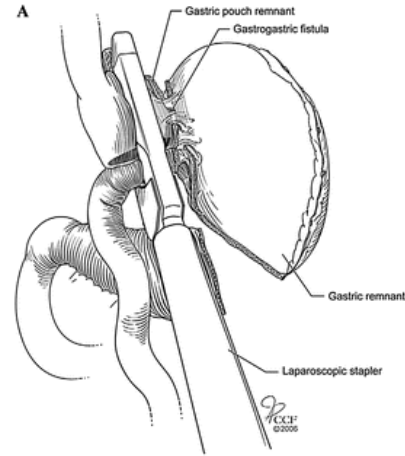
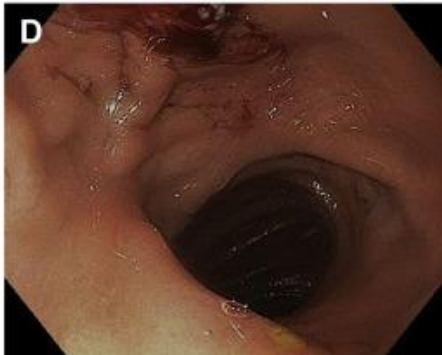
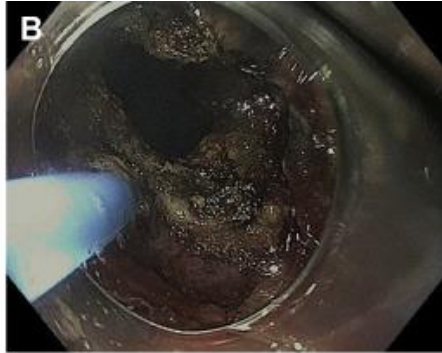
- **Long-term efficacy** – needs standardization of procedural steps and post-procedural diet, comparative studies with surgery/medication



GG fistula



GG fistula



10-20mm GG fistula size is where efficacy for endoscopic intervention becomes questionable

IV. Creative endoscopic solutions

CASE

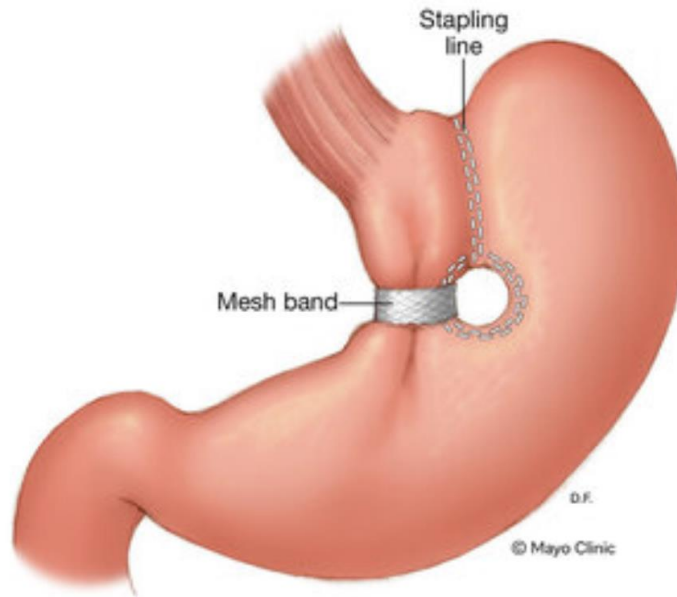
- 74F with previous “RYGB”
- **PMHx:** CAD s/p PCI, chronic arthralgia with **NSAID use**, long-standing **smoking**, seizures, asthma, depression
- **Inability to tolerate oral intake** for ~6months with daily vomiting. Only tolerating sips of clears

Initial treatment and work up

- Nutrition consultation & close monitoring of re-feeding
- Plan for EGD and dilation

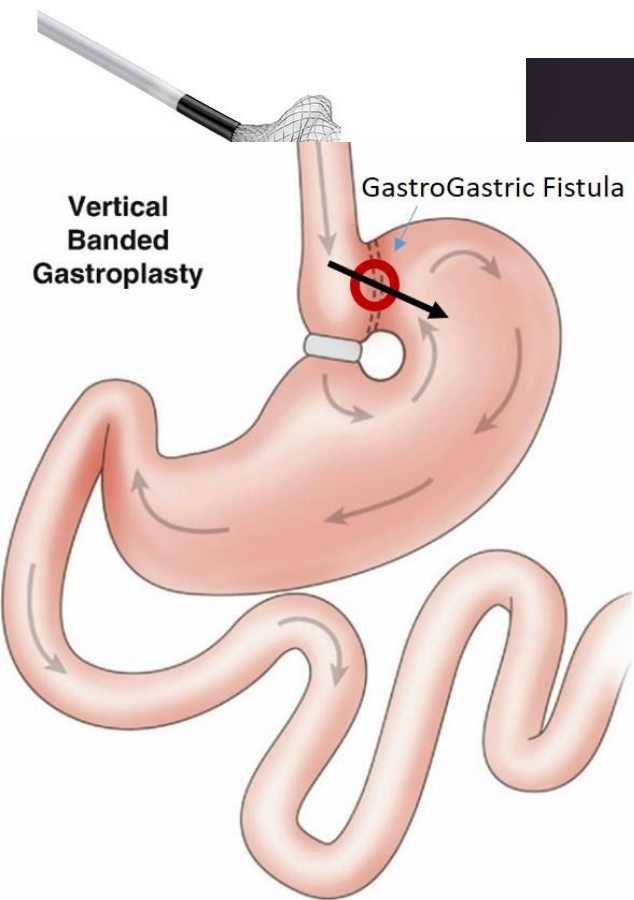


Initial Endoscopy (Aug 2025)



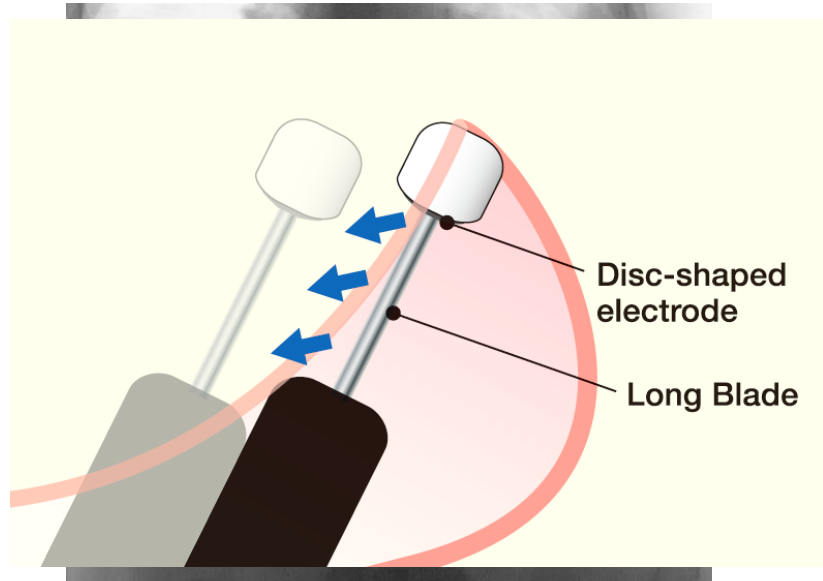
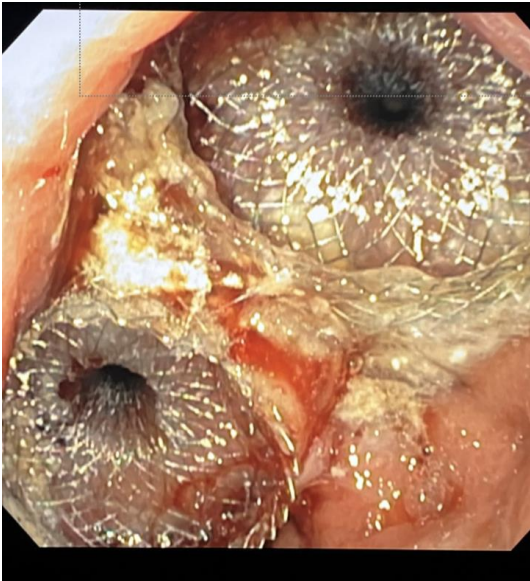
Vertical banded gastroplasty

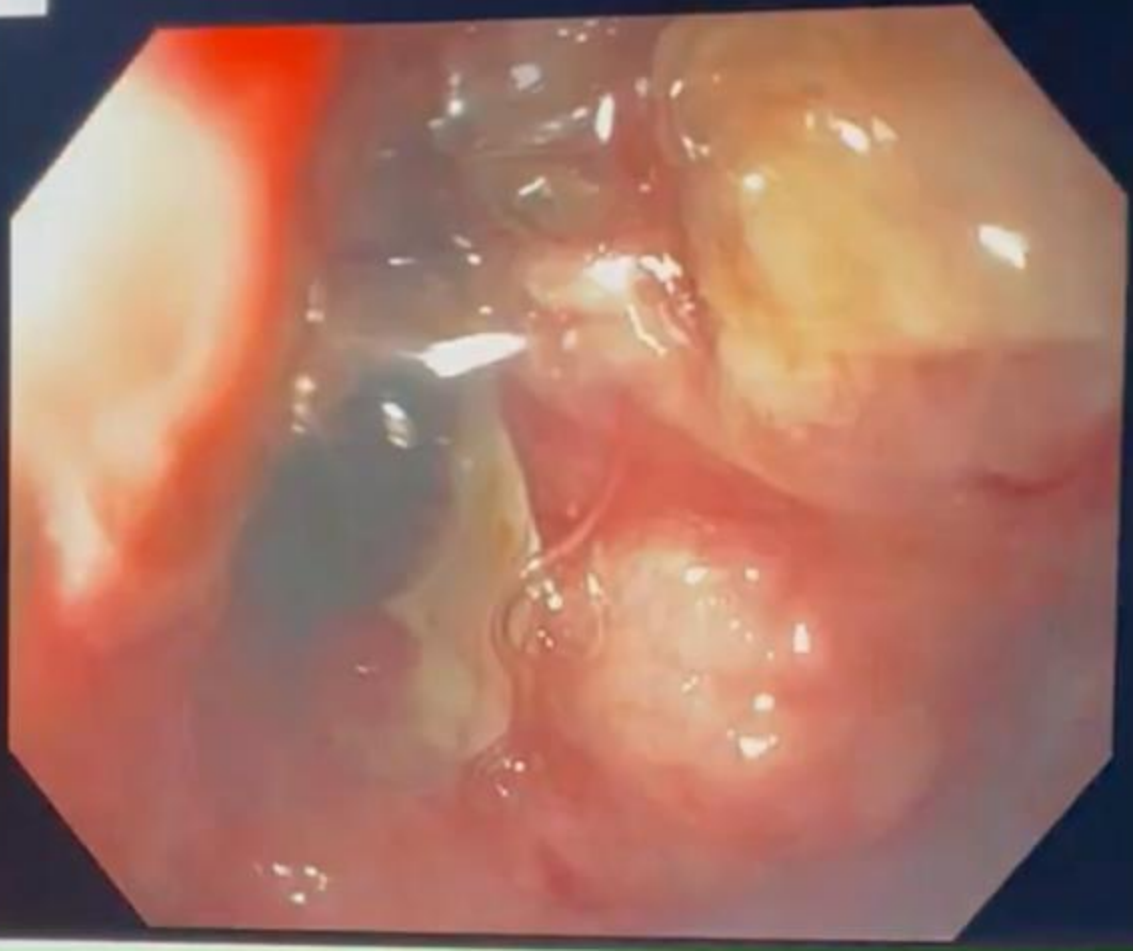




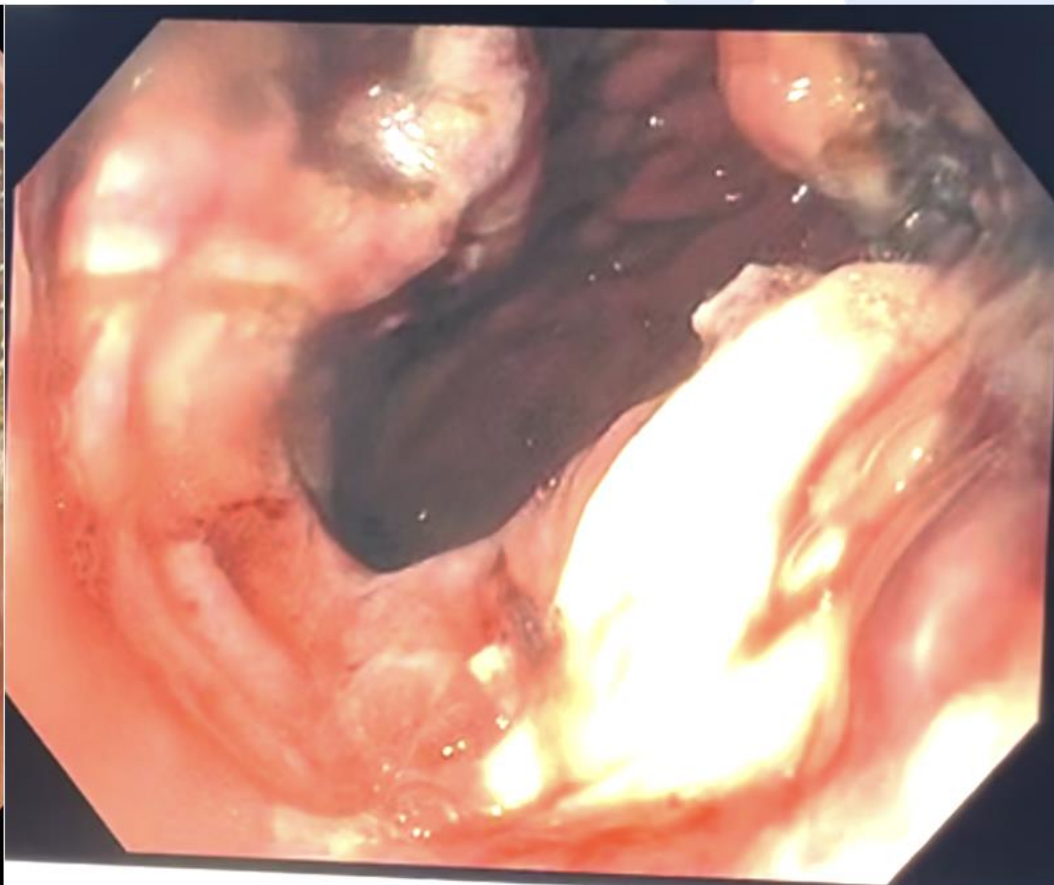
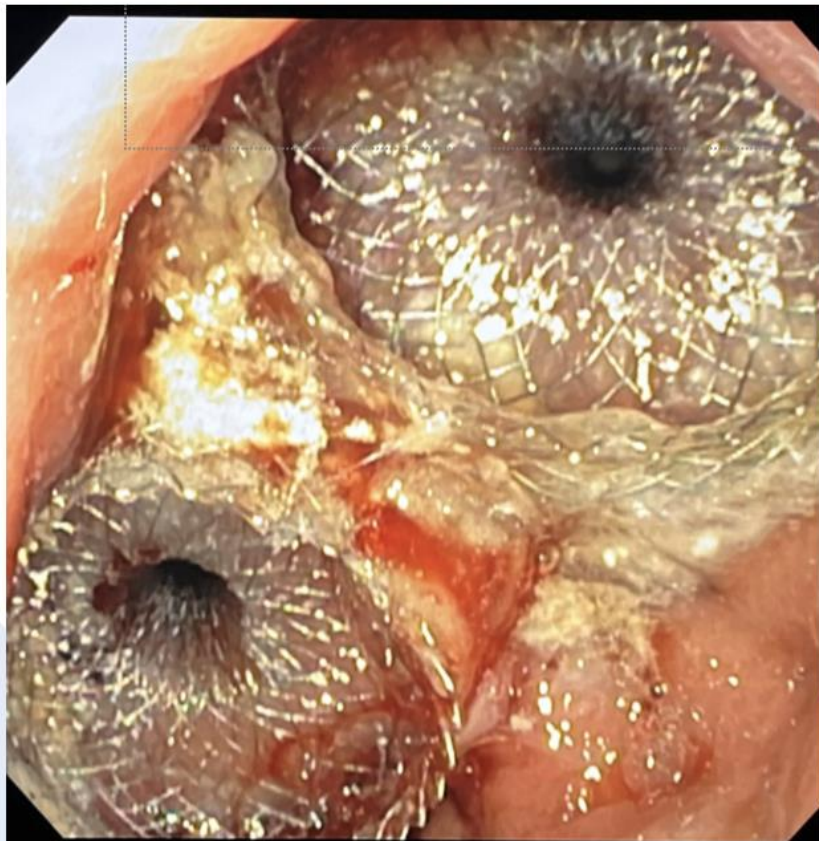
EUS and AXIOS STENT PLACEMENT (X2)

- Discharged after tolerating full fluid diet

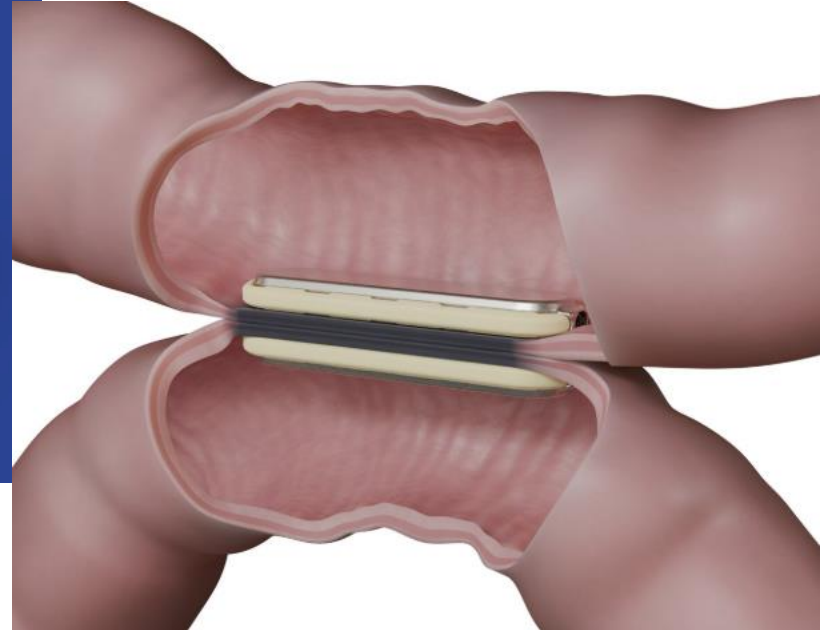




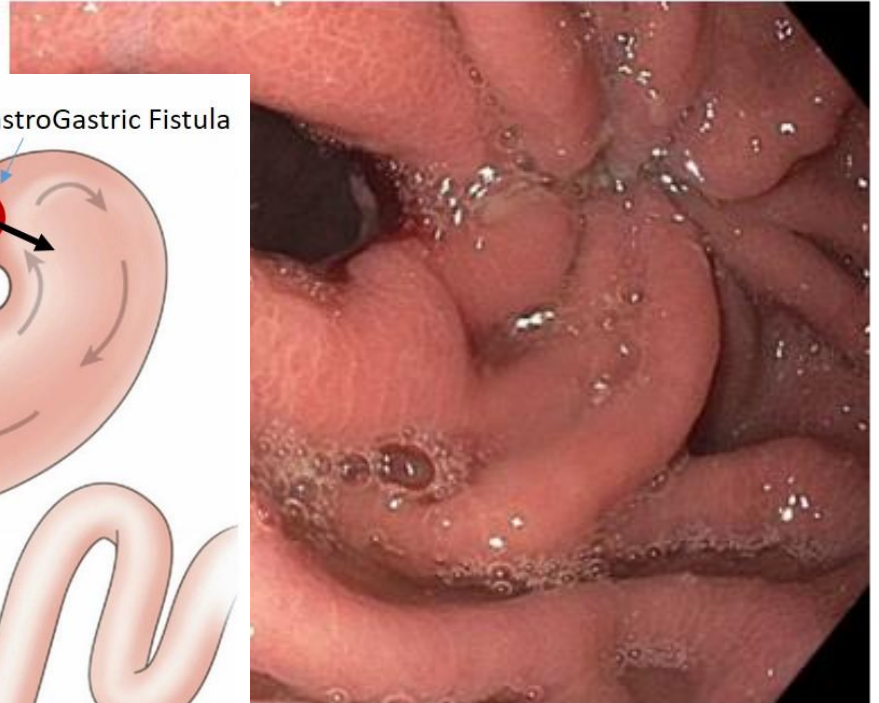
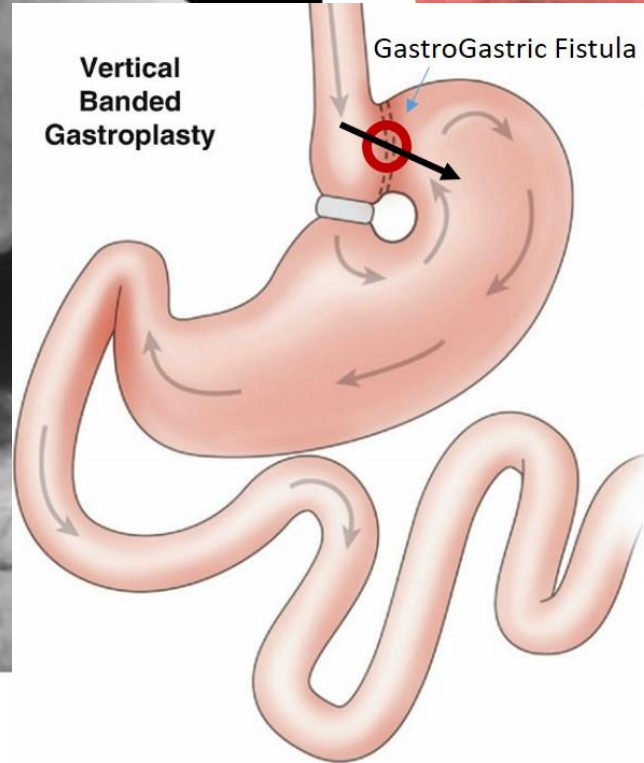
Before & After











SUMMARY

- Altered anatomy from MBS often requires **creative solutions** that combines endoscopy and surgery
- **Endoscopic solutions rarely burn bridges to surgery. In fact, it can be a bridge to definitive surgical management**
- Level II-IV evidence with limited comparison to surgery
- **Collaborate** with local advanced endoscopist/GI

Thank you!

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Thank you!

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Transoral Outlet Reduction: Patient Selection

Boston
Scientific

➤ **Age: 18-65+**

➤ **BMI: 30-50**

➤ **RYGB History**

- 2+ years post-RYGB surgery
- Initially achieved at least 50% EWL and/or BMI 35 or less***
- Loss of satiety
- Chronic Dumping Syndrome

➤ **Anatomy**

- Endoscopic assessment
- Enlarged stoma with or without enlarged gastric pouch (Threshold of stoma size?)***
- Pouch length is > 5cm

➤ **Other**

- Completed successful nutritional education and screening and willing to cooperate with follow-up dietary recommendations and assessment test

➤ **Contraindications**

- Same as ESG (previous slides)

➤ **Exclusion Recommendations**

- Patients with banded RYGB
- Causal factors for weight regain other than gastric pouch enlargement including known eating disorder
- Plans of pregnancy in the next 12 months
- Immunosuppression
- Active substance abuse
- Any active medical condition that would preclude a safe endoscopic suturing
- Severe acid reflux disease with active ulceration at EGJ
- Dysphagia

Lap Band

