CUTTING EDGE OF MINIMALLY INVASIVE BARIATRIC INTERVENTIONS

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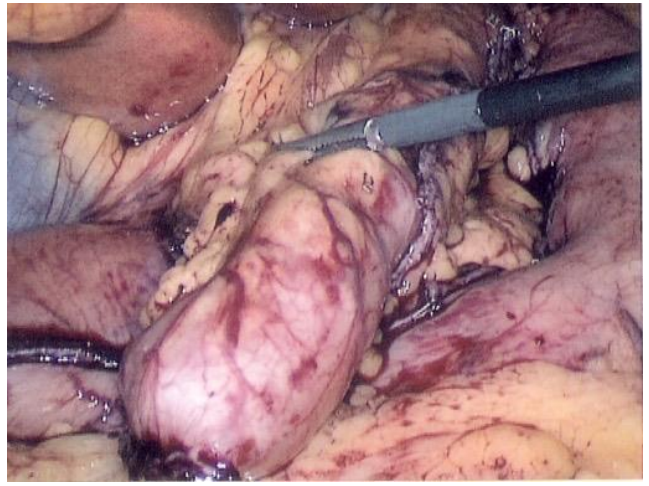
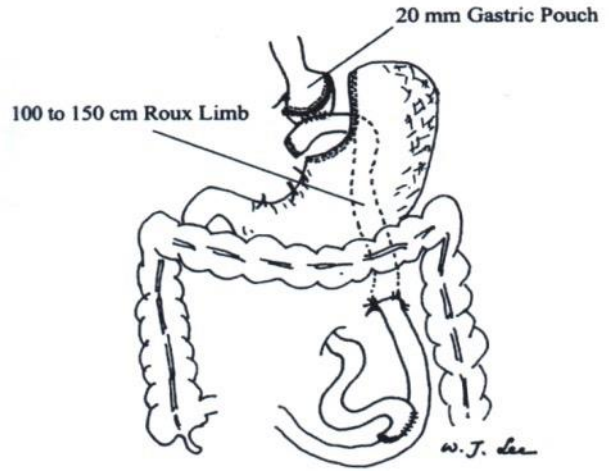
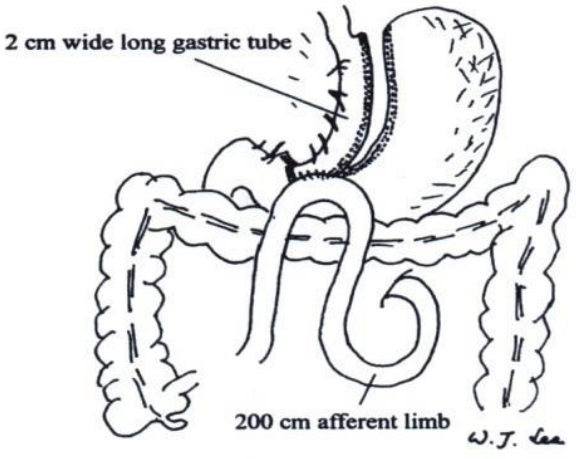
Disclosures

Ethicon Endosurgery	*Consultant/Speaker*
Medtronic	*Consultant/Speaker*
Olympus	*Consultant/ Speaker*
Boston Scientific	*Advisory Board*
GI Windows	*Advisory Board*
Advantage Bariatrics	*Consultant*
Sager	*Advisory Board*

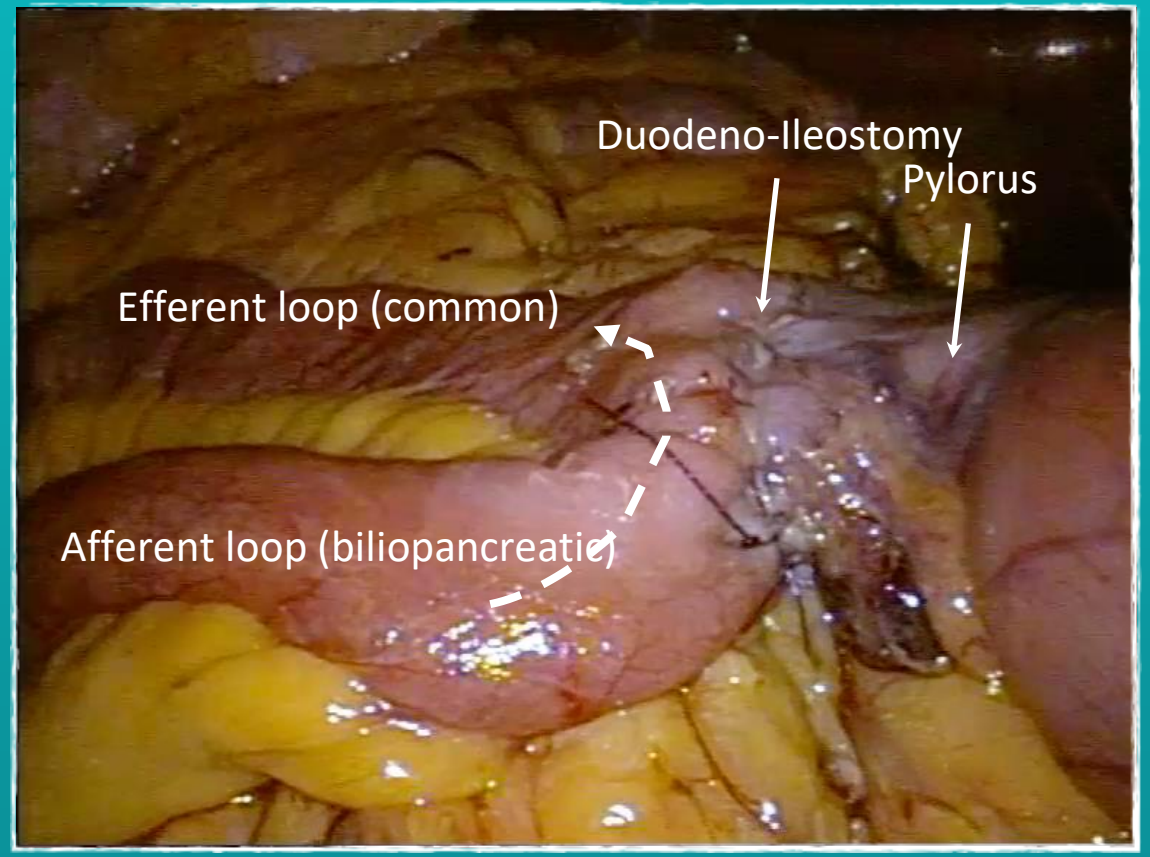
OAGB




20 mm Gastric Pouch
100 to 150 cm Roux Limb
W.J. Lee

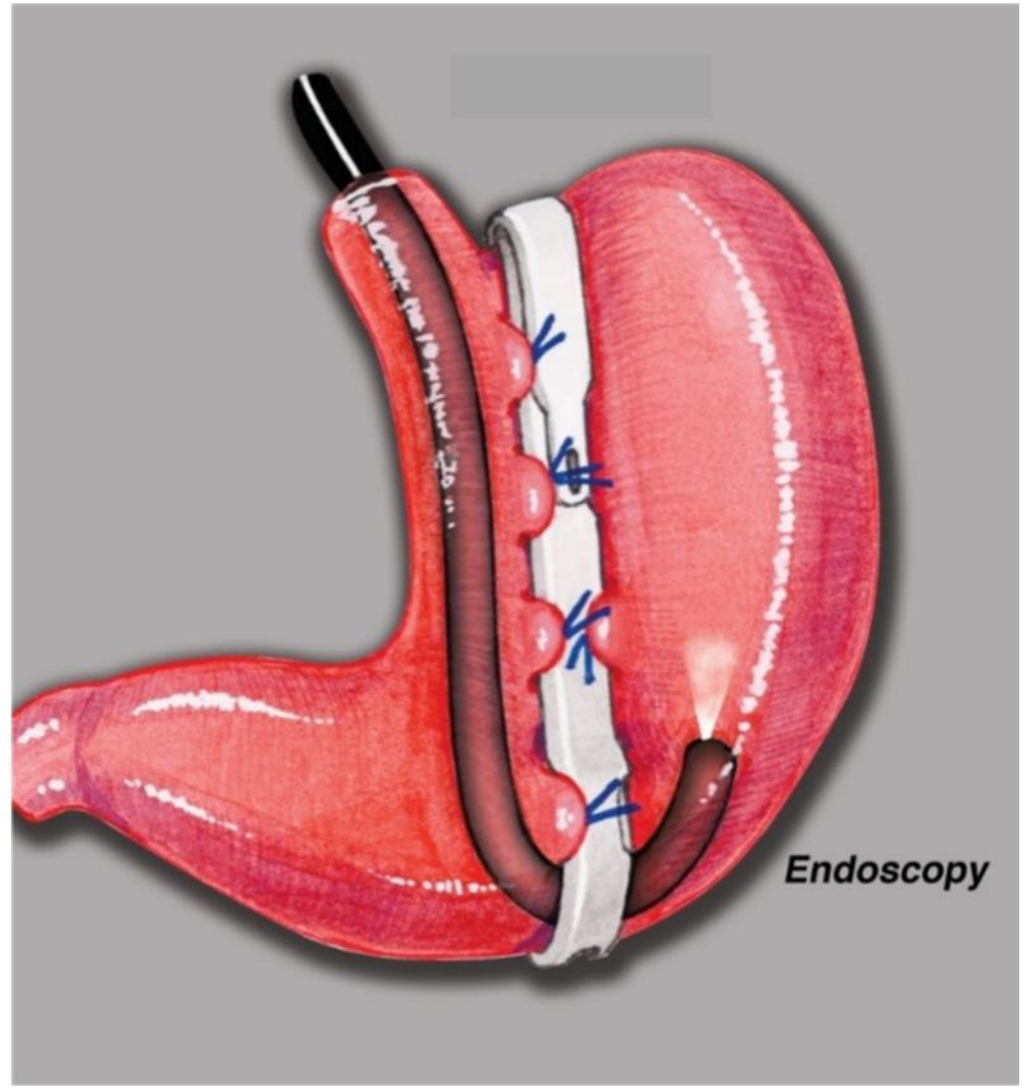

2 cm wide long gastric tube
200 cm afferent limb
W.J. Lee

If a normal pylorus is preserved, and the anastomosis is not under tension, THERE IS NO NEED OF A ROUX-EN-Y DIVERSION

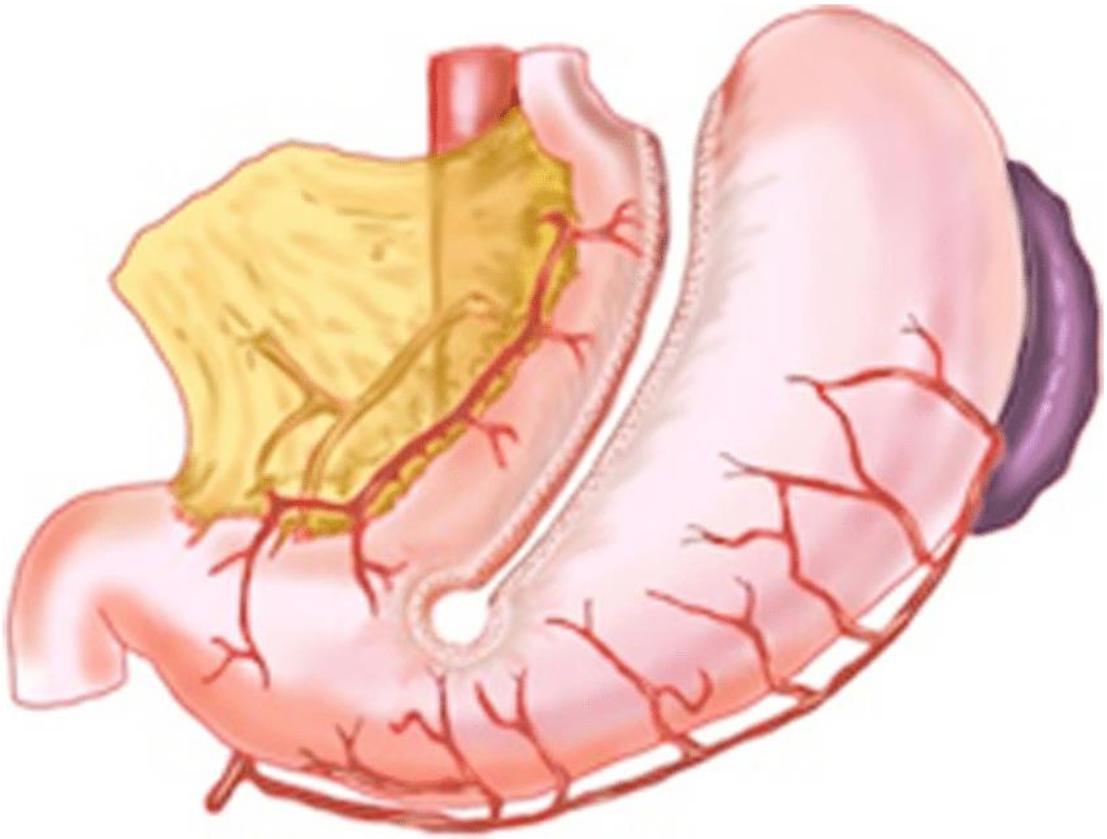


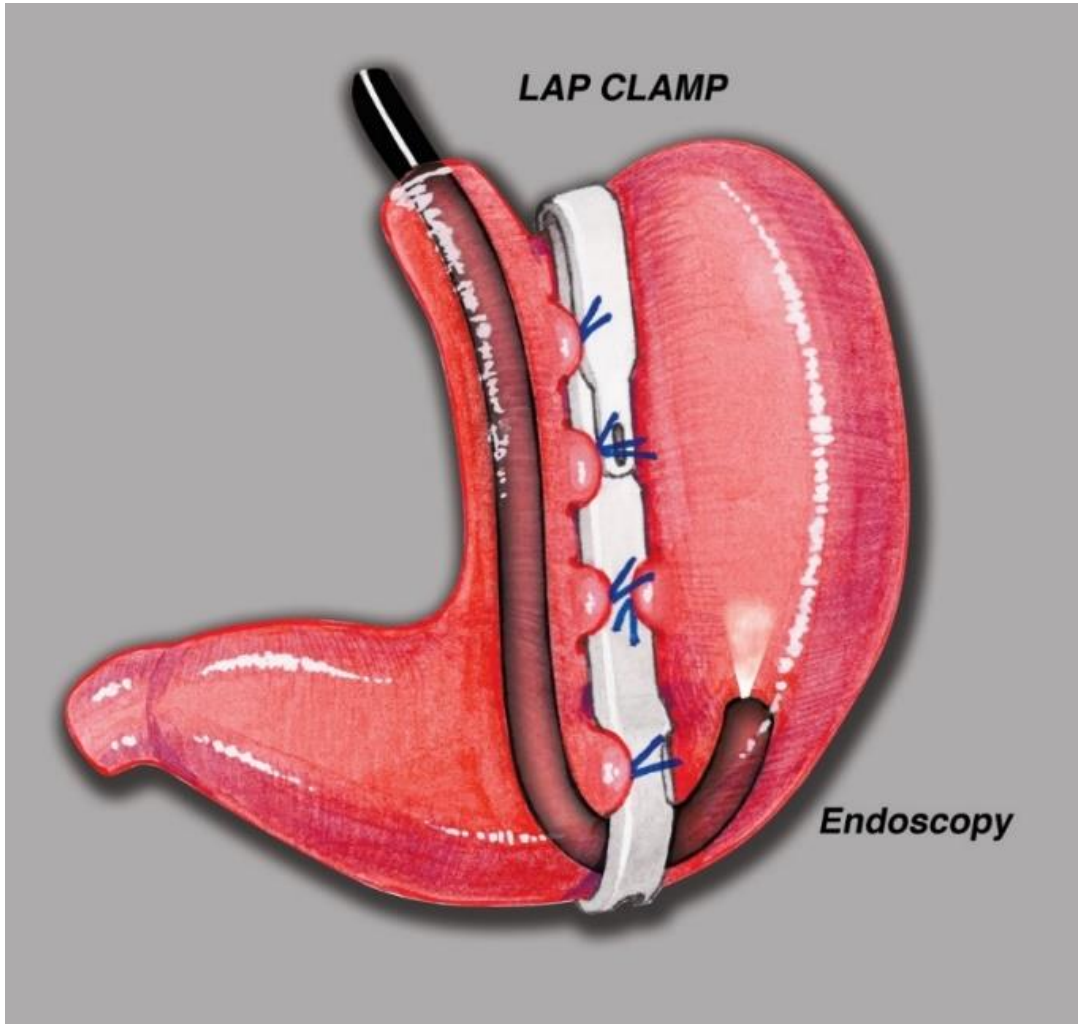
BARICLIP

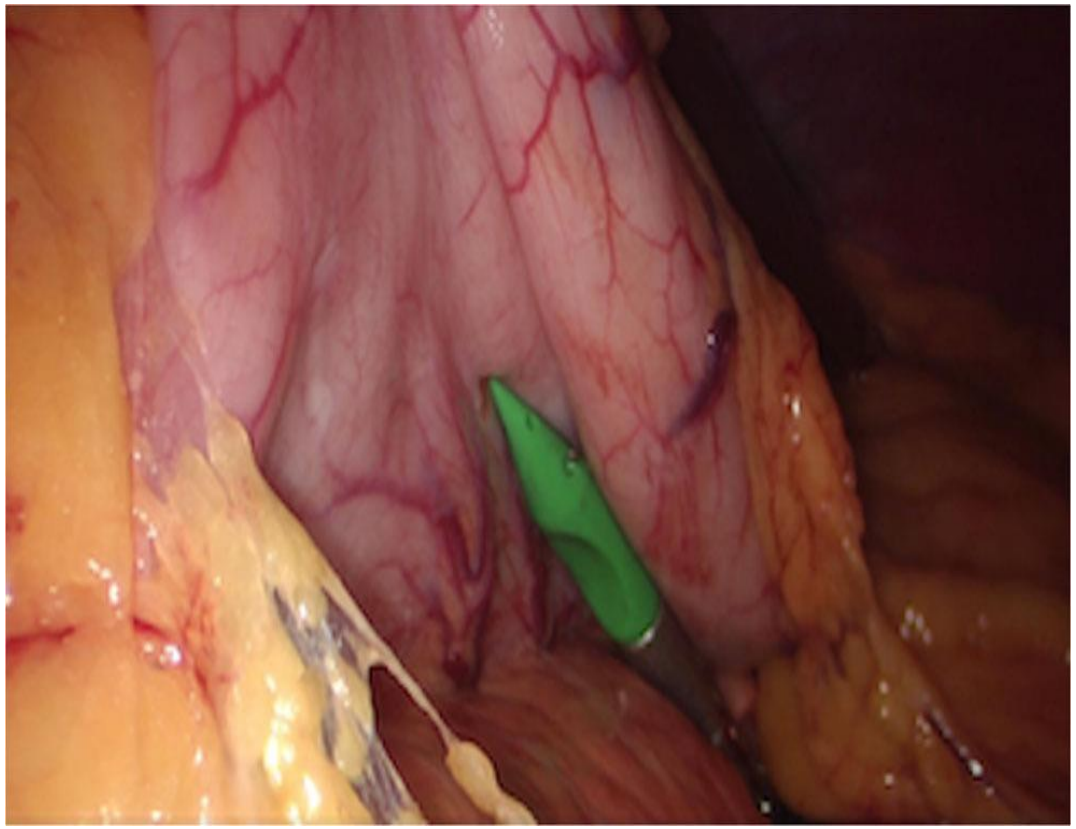
- *Placed parallel to lesser curvature*
- *Separates the stomach into a restricted medial segment where food passes and an excluded larger lateral gastric segment.*
- *Reversible*
- *No cutting, No stapling, No leaks*
- *No tissue is removed*
- *No change in anatomy*
- *No maintenance required*
- *Whole stomach is accessible via endoscopy*
- *Same day surgery*



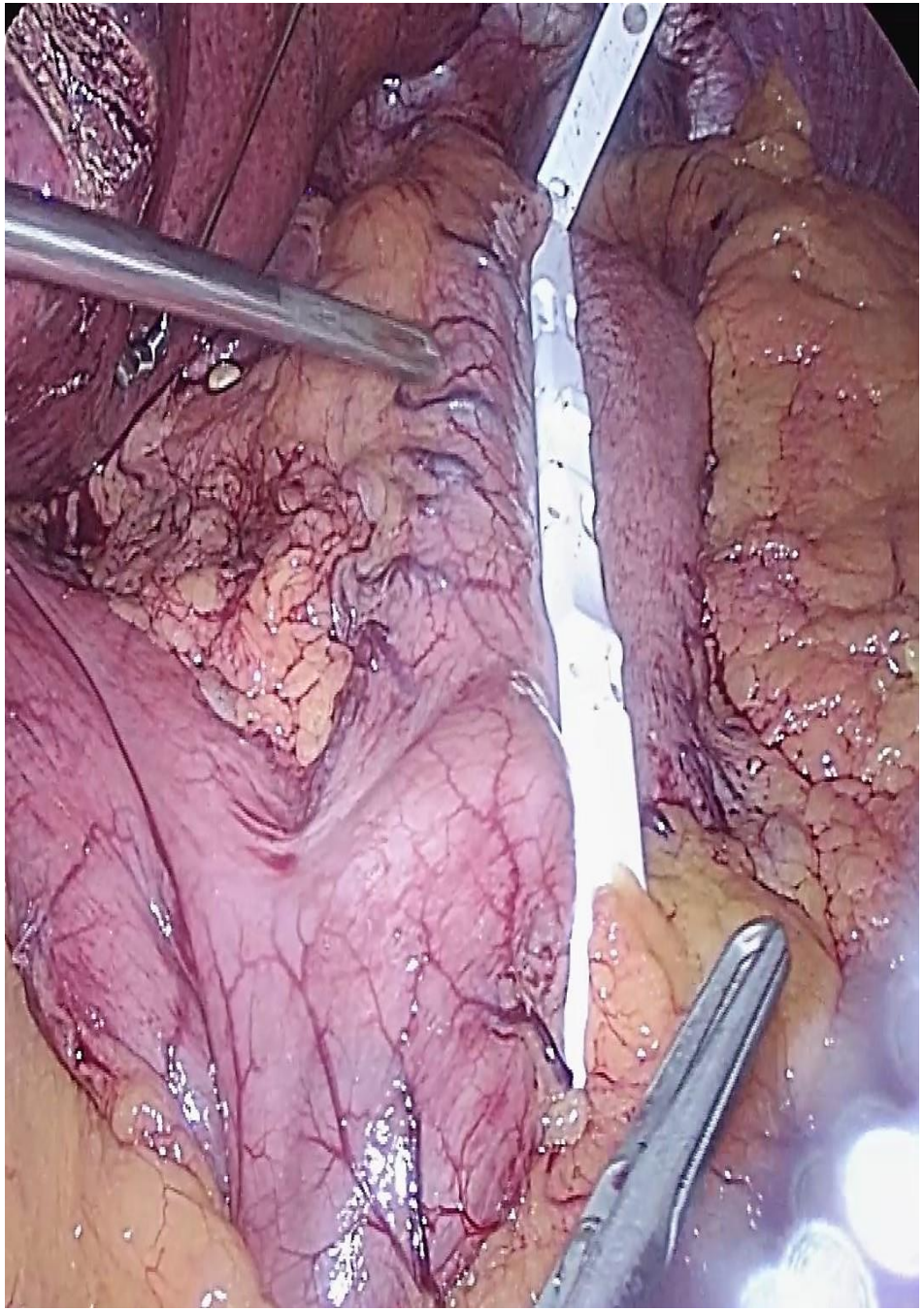
COMPARISON







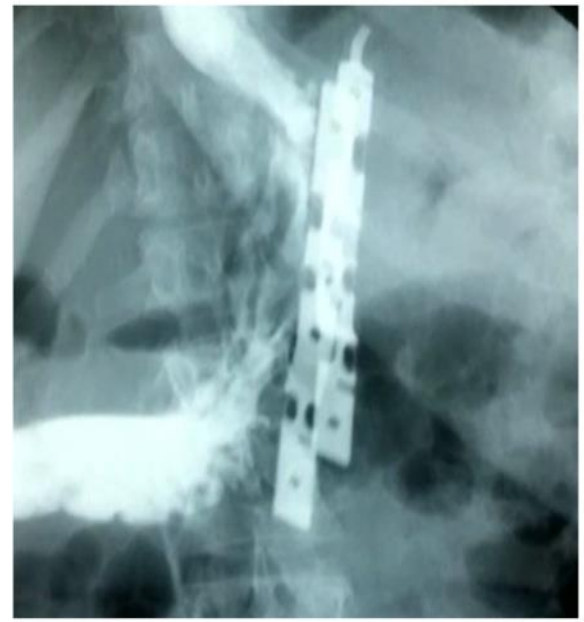




UGI Comparison

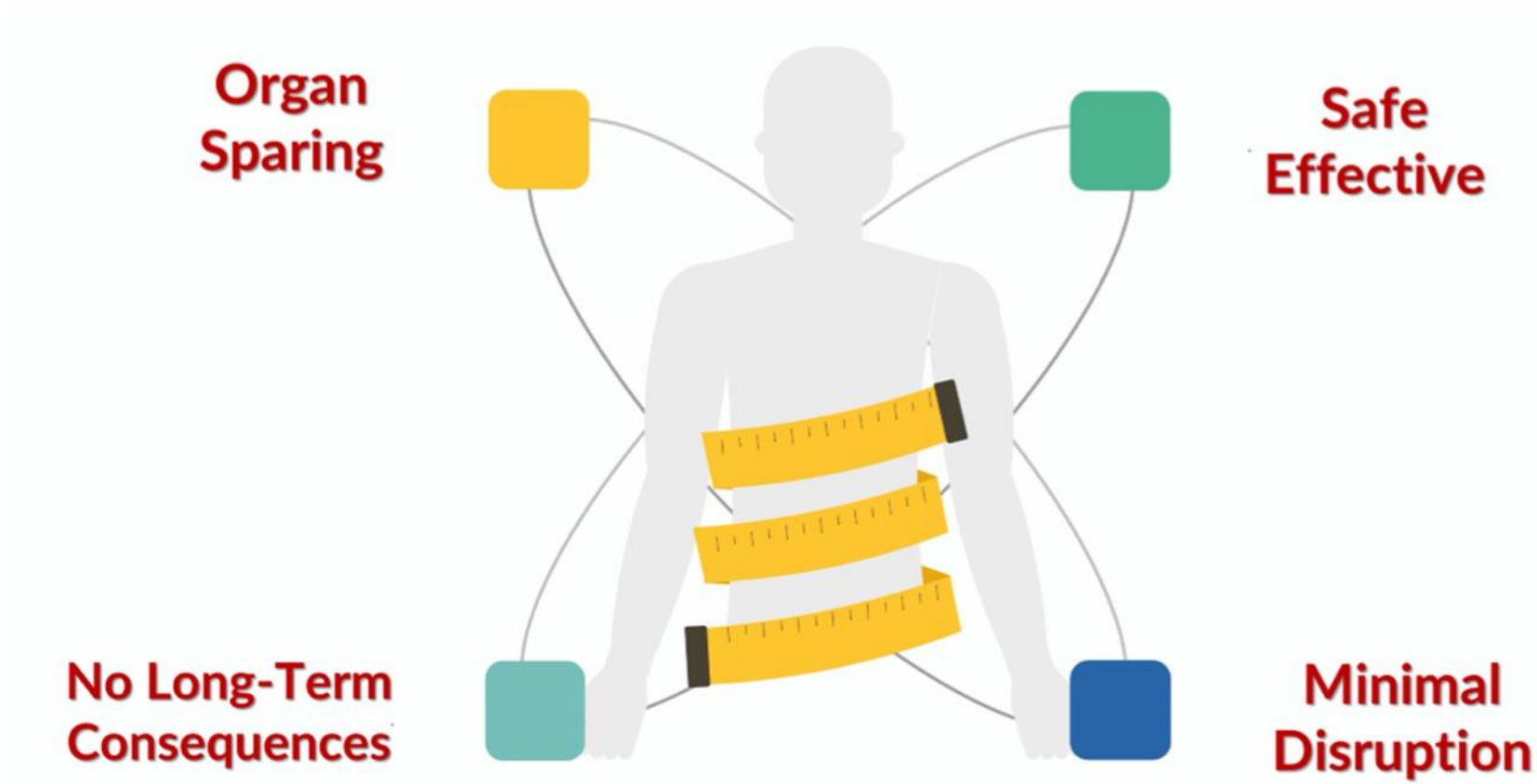
Sleeve

BariClip



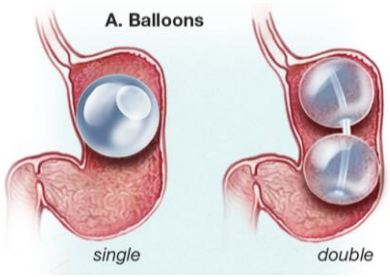
WE ARE RESOURCEFUL WITH WHAT WE HAVE….

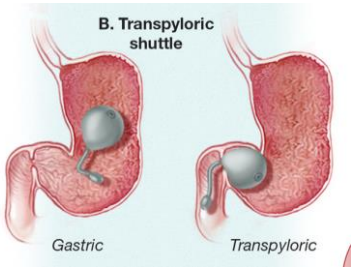
Value Proposition

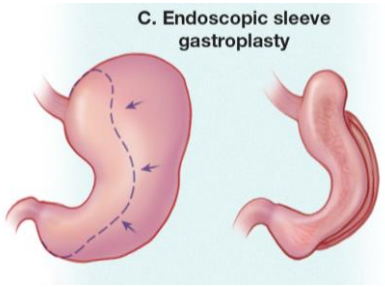


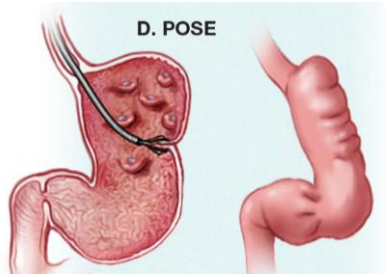
WHY MIS/ENDOSCOPY and MEDICATIONS?

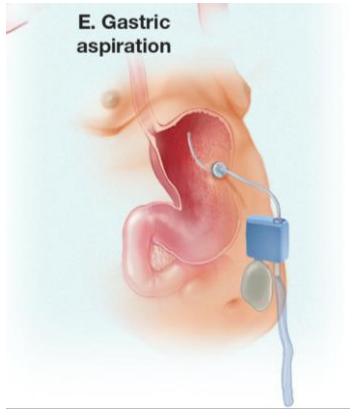
Interventions on the Stomach

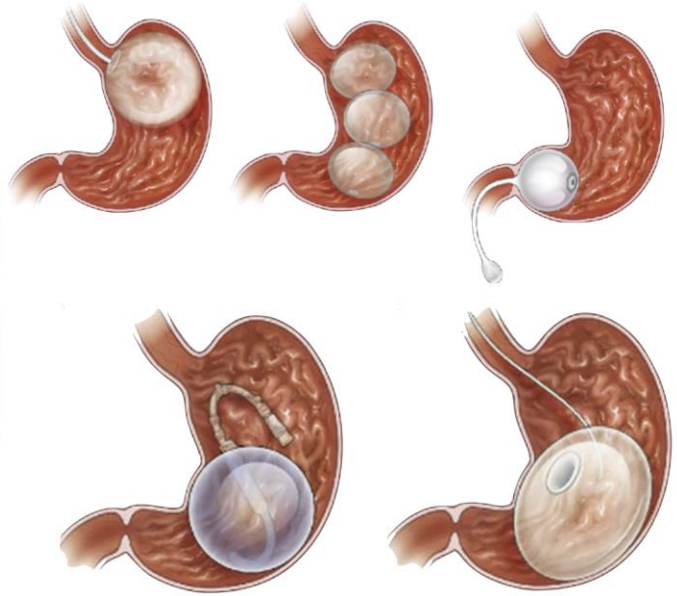




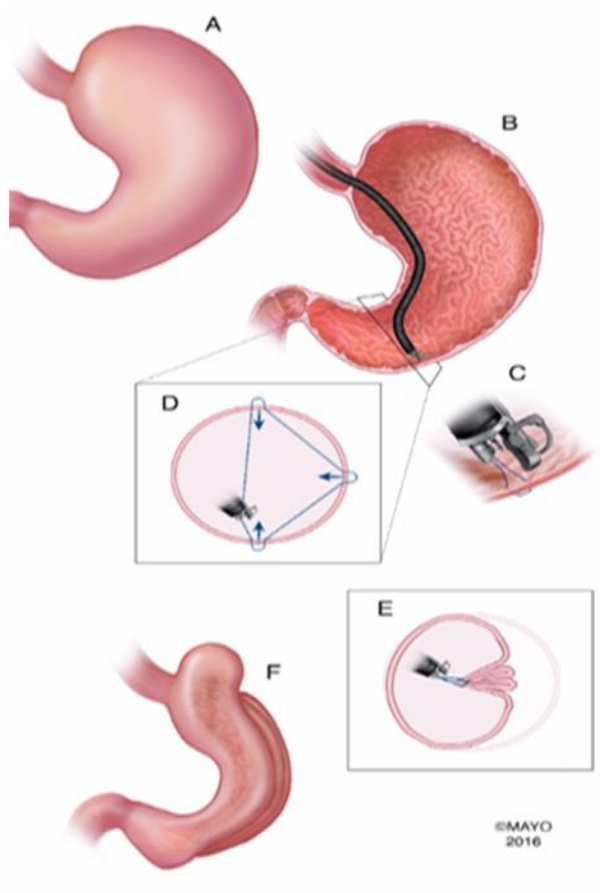


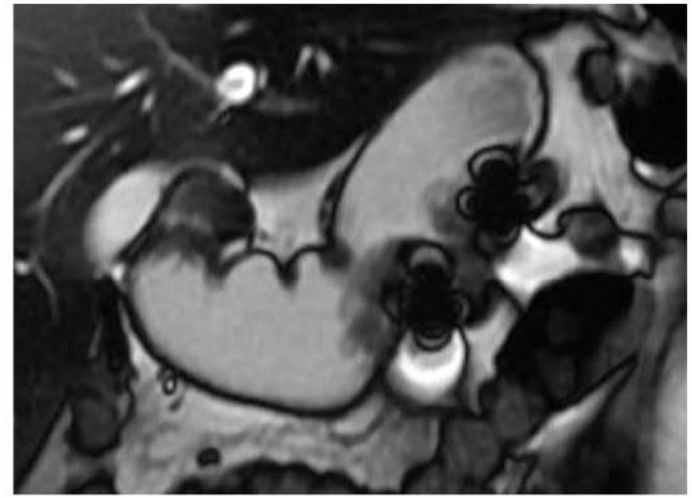






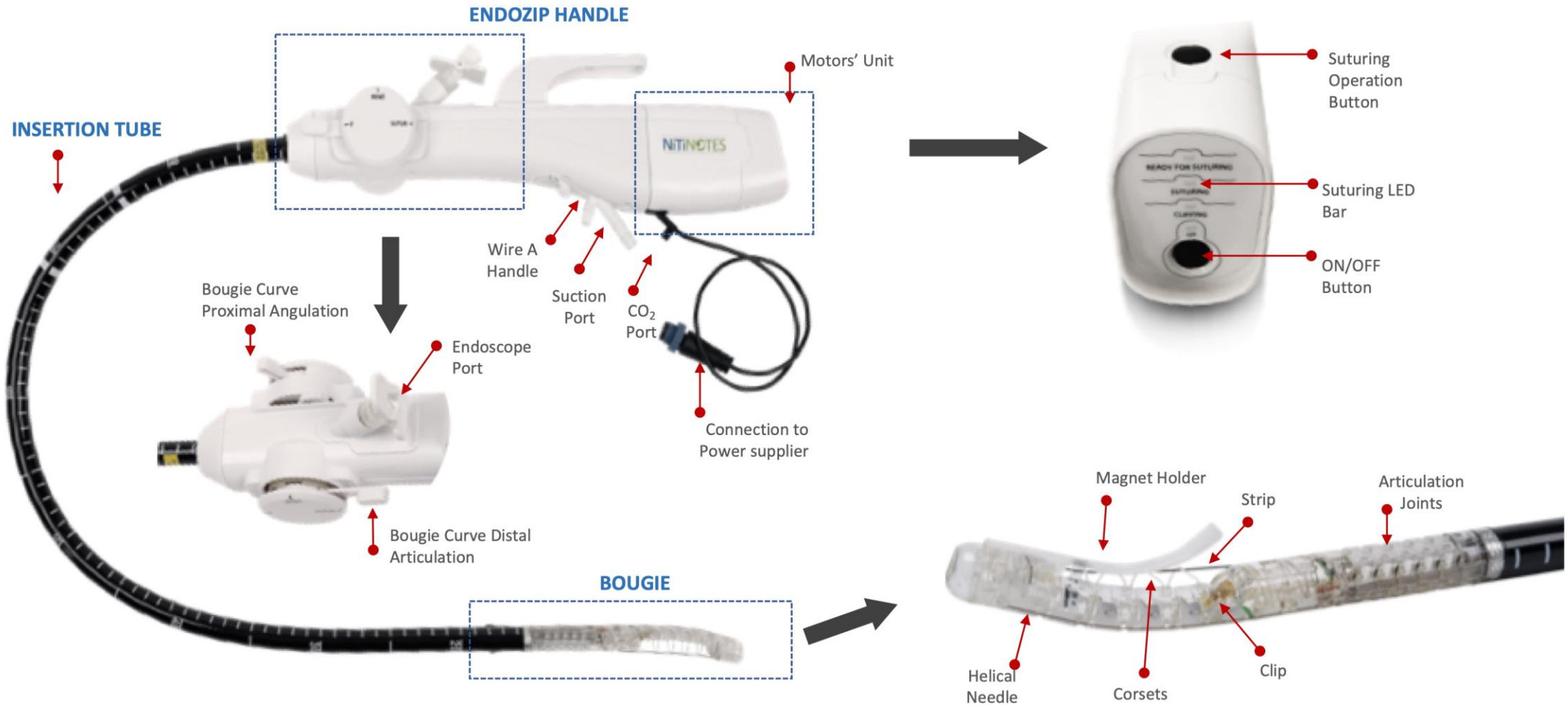
Endoscopic Sleeve Gastroplasty

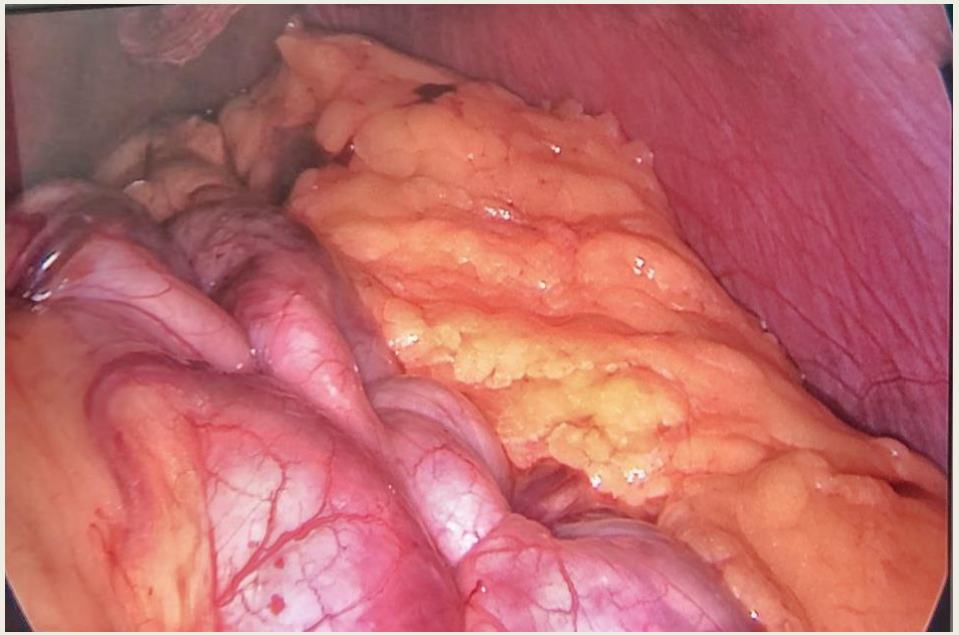


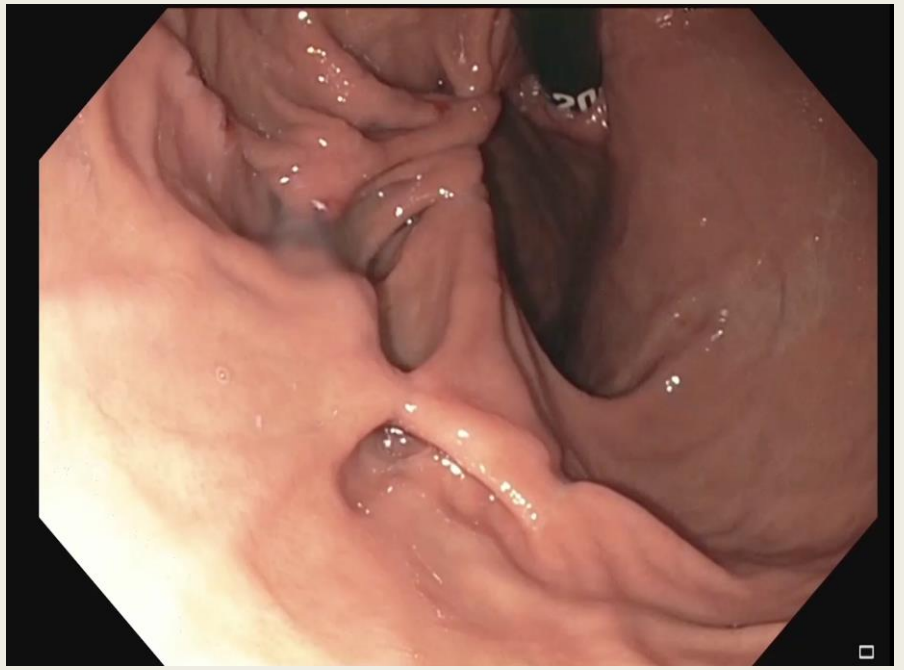


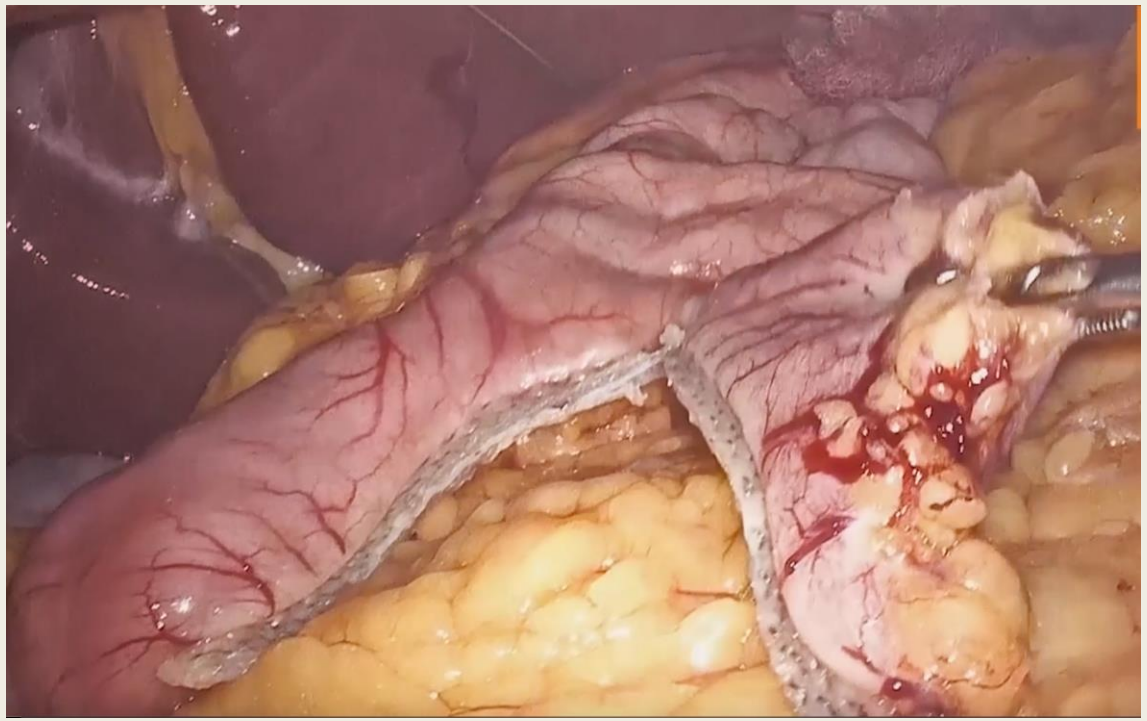
Abu Dayyeh and Gostout GIE 2013 Sep;78(3):530-5

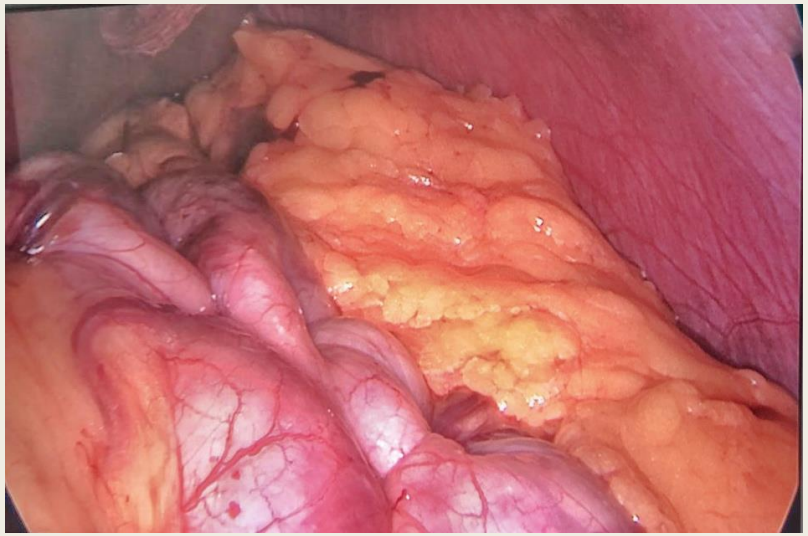
Robotic Endoscopy- Endozip

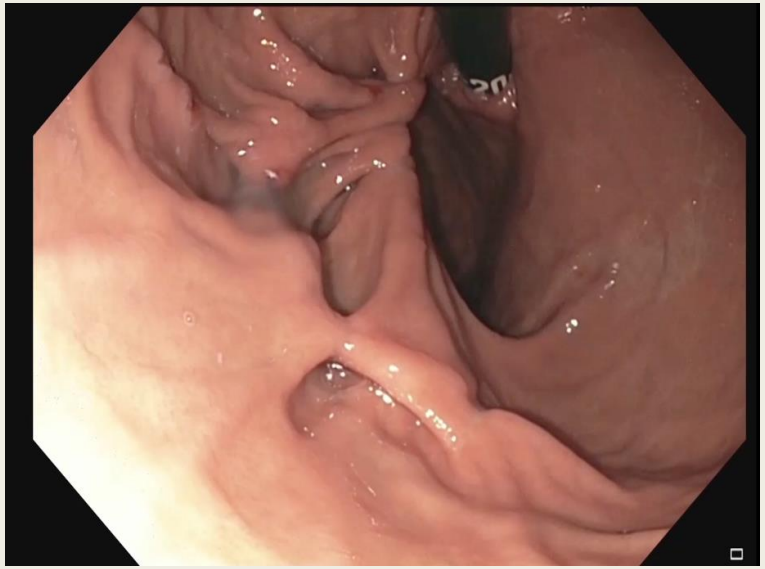


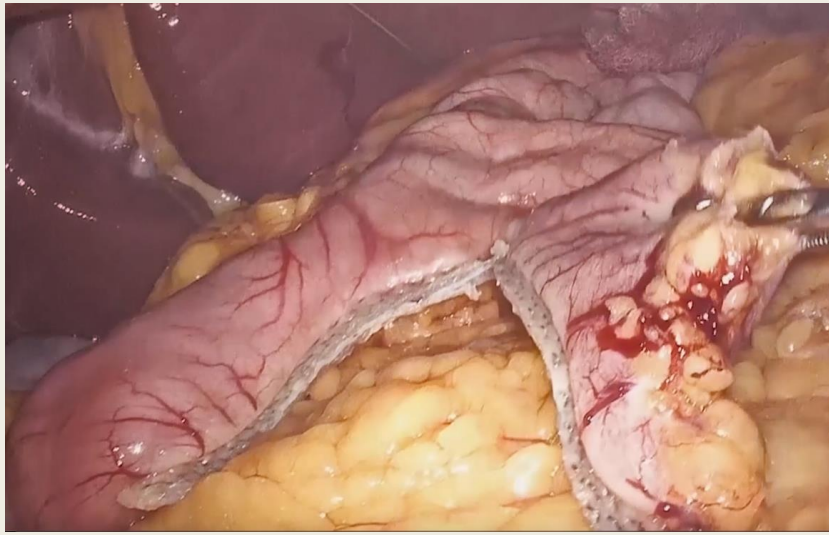












Reversal of endoscopic sleeve gastroplasty and conversion to sleeve gastrectomy – Two case reports

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Conversion of endoscopic sleeve gastroplasty to laparoscopic Roux-en-Y gastric bypass

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Short-term outcomes of endoscopic sleeve gastroplasty in 1000 consecutive patients

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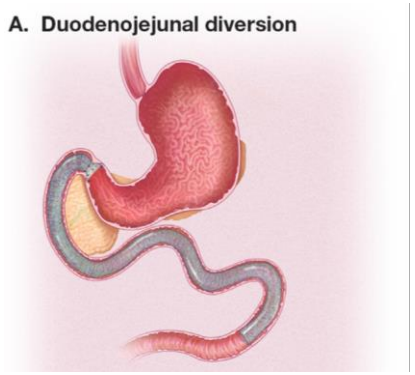
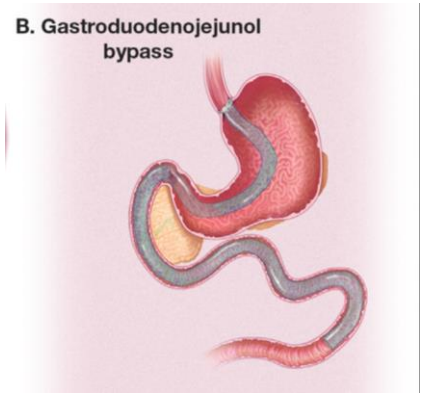
Table 4. Revision rates after primary ESG in the first 1000 patients who underwent the procedure at our center

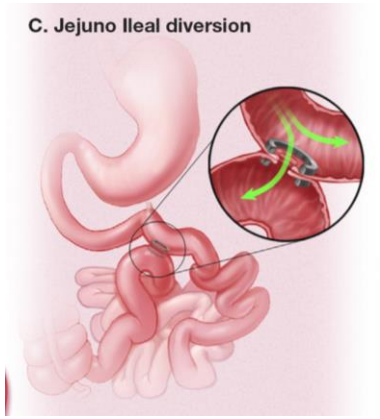
Procedure	n (%)
Endoscopic-Laparoscopic Revision to Sleeve Gastrectomy	8 (0.8)
Redo ESG	5 (0.5)
Reoperation	0 (0.0)

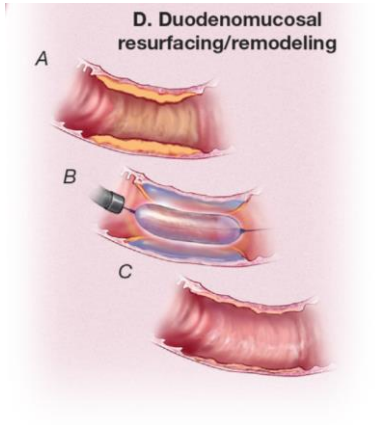
ESG: Endoscopic sleeve gastroplasty

Interventions on the Bowel





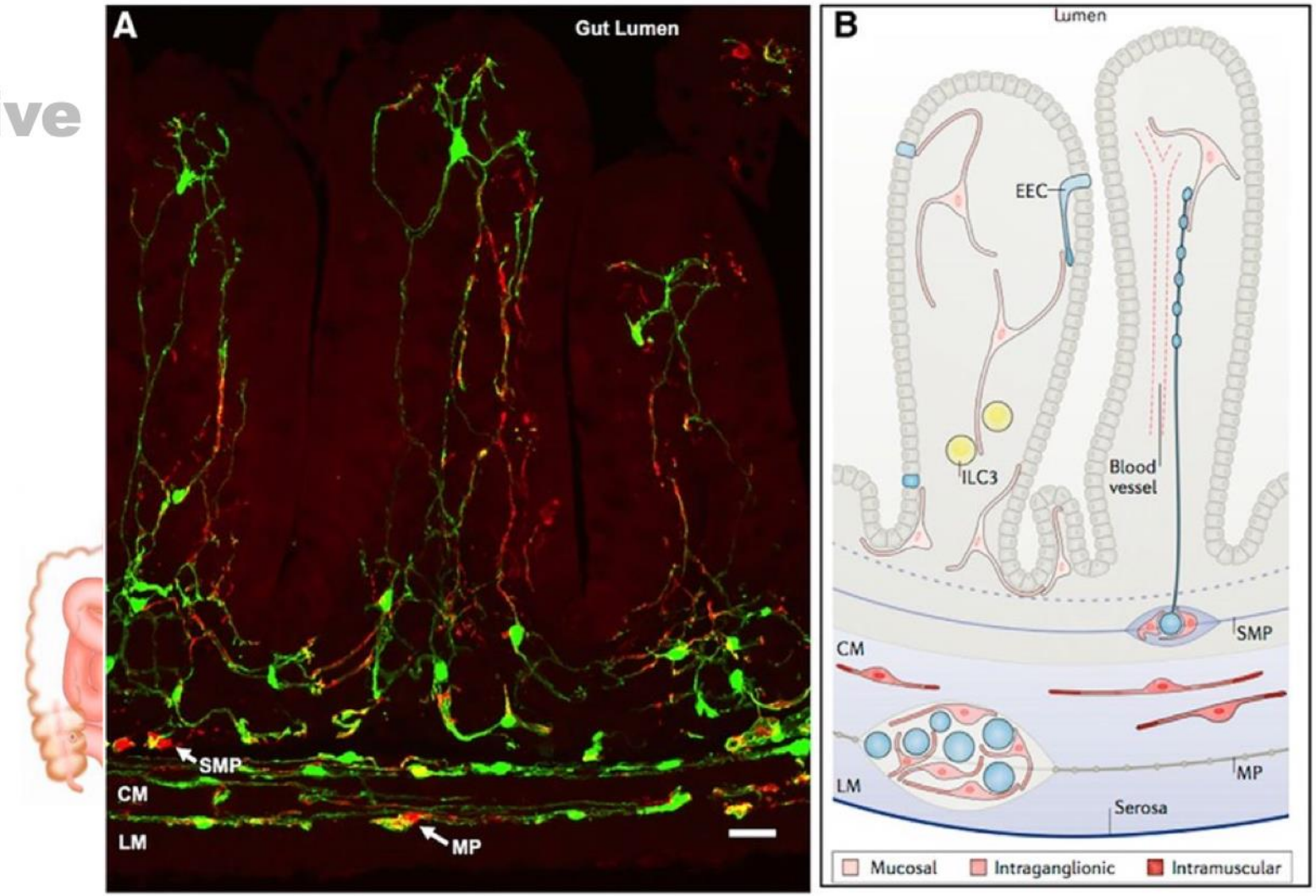




Small Intestine – The Tube of Life (*Science 2018*)

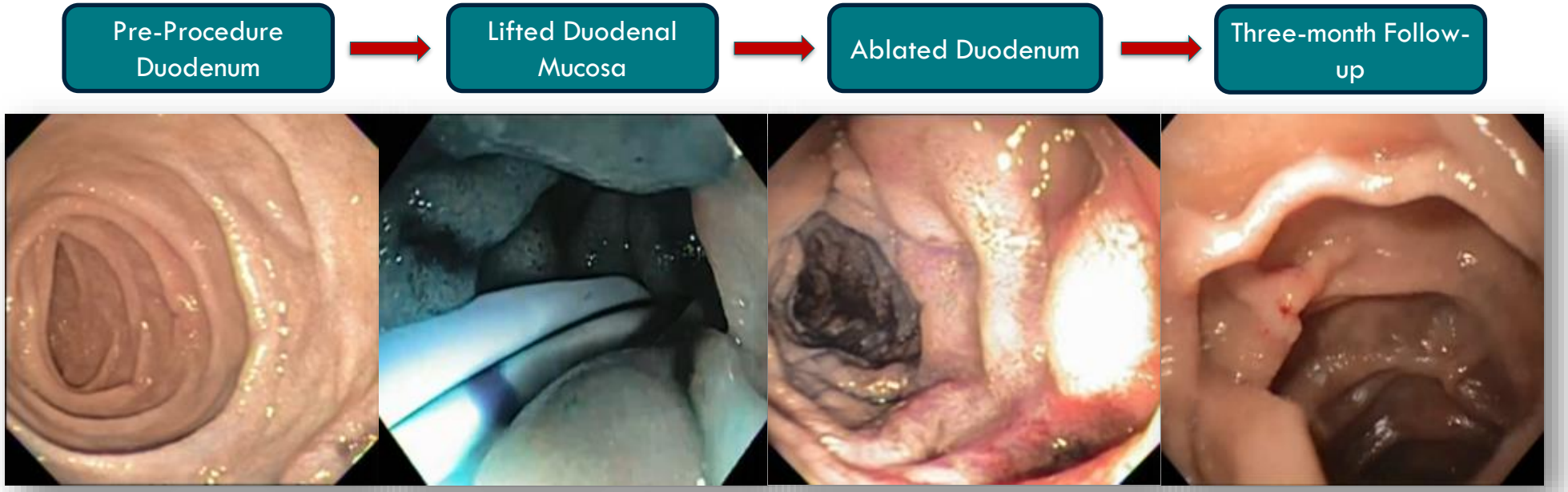
Cell Metabolism

Perspective



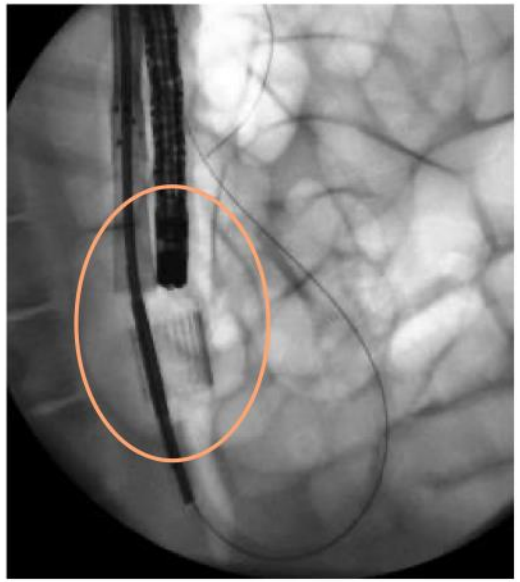
Kaelberer *et al.*, *Science* **361**, eaat5236 (2018)

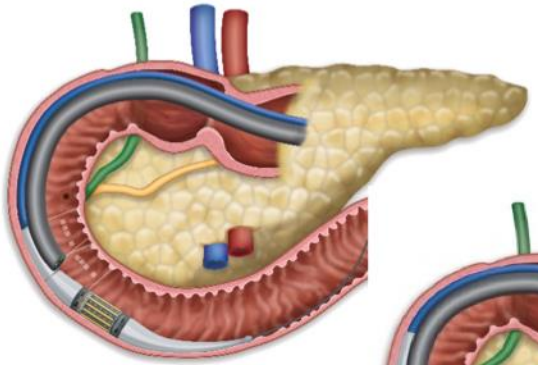
DMR Procedure: Endoscopic View



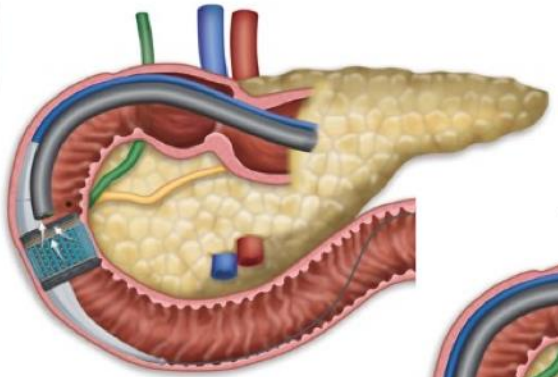
- Procedure:
  - Duodenal mucosa lifted by saline to create thermal barrier protecting deeper tissues
  - Circumferential ablation through thermal exchange (hot water)
  - Follow up endoscopies and duodenal biopsies at 1mo and 3mo document mucosal healing

Pulsed Electrical Field Duodenal Stimulation Technology

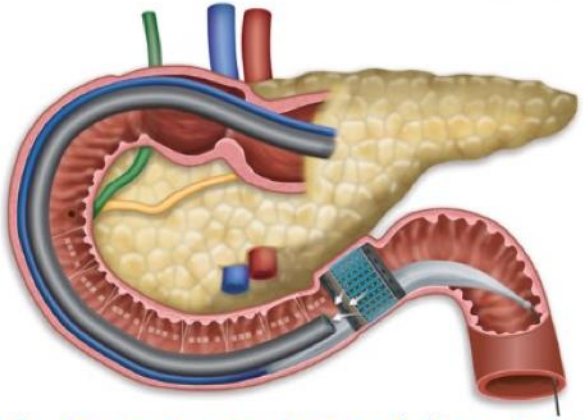




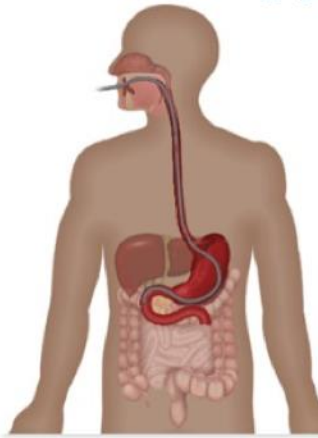
1. Introduce Device



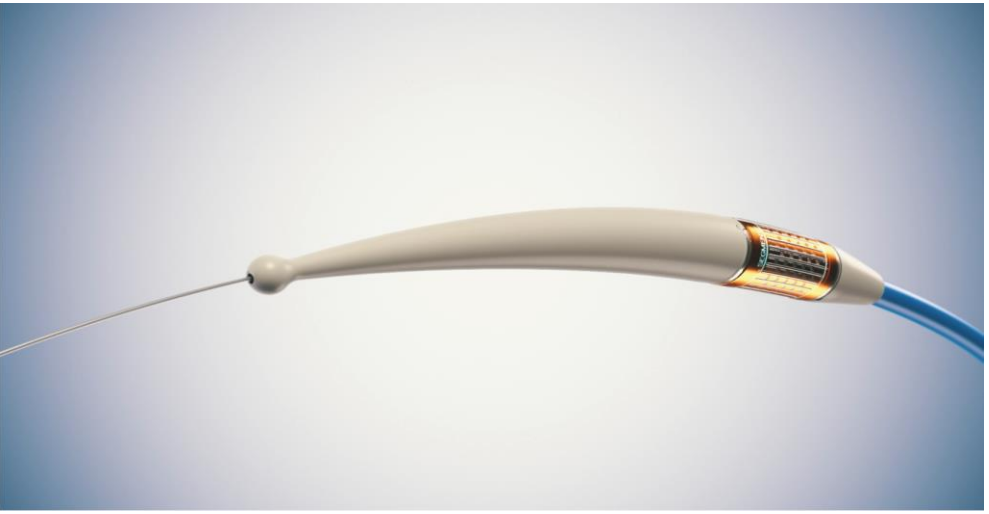
2. Engage Duodenum/
Deliver Therapy



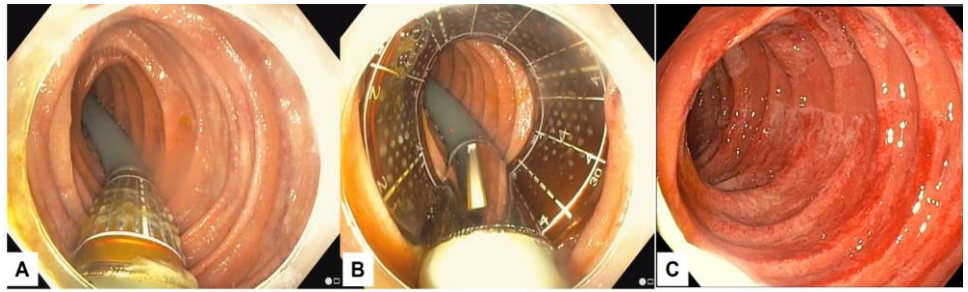
3. Recapture, Reposition, Repeat

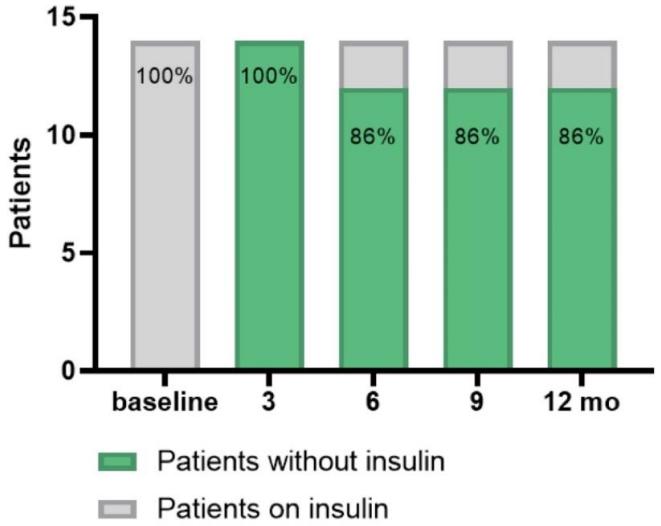


Outpatient procedure



Endoscopic Re-Cellularization via Electroporation (ReCET)™ Therapy





Improved glycemic control

- Improved HbA1c and time with adequate blood glucose levels

Improved metabolic health

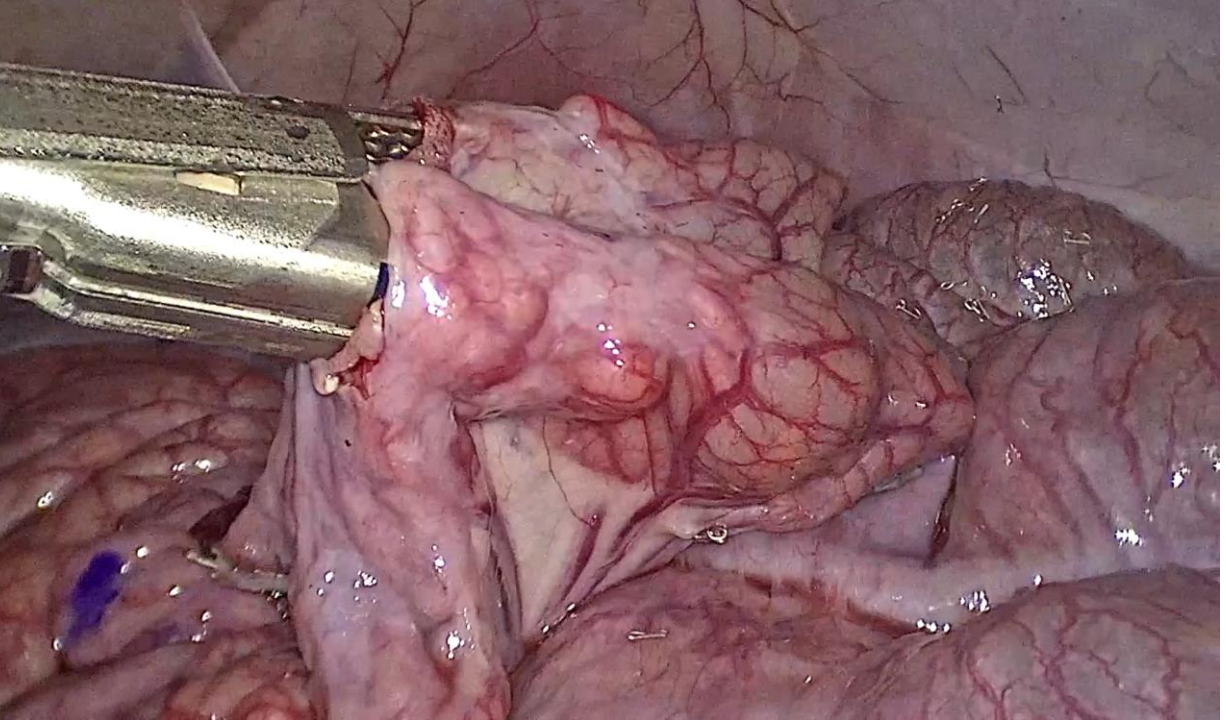
- >50% reduction of liver fat

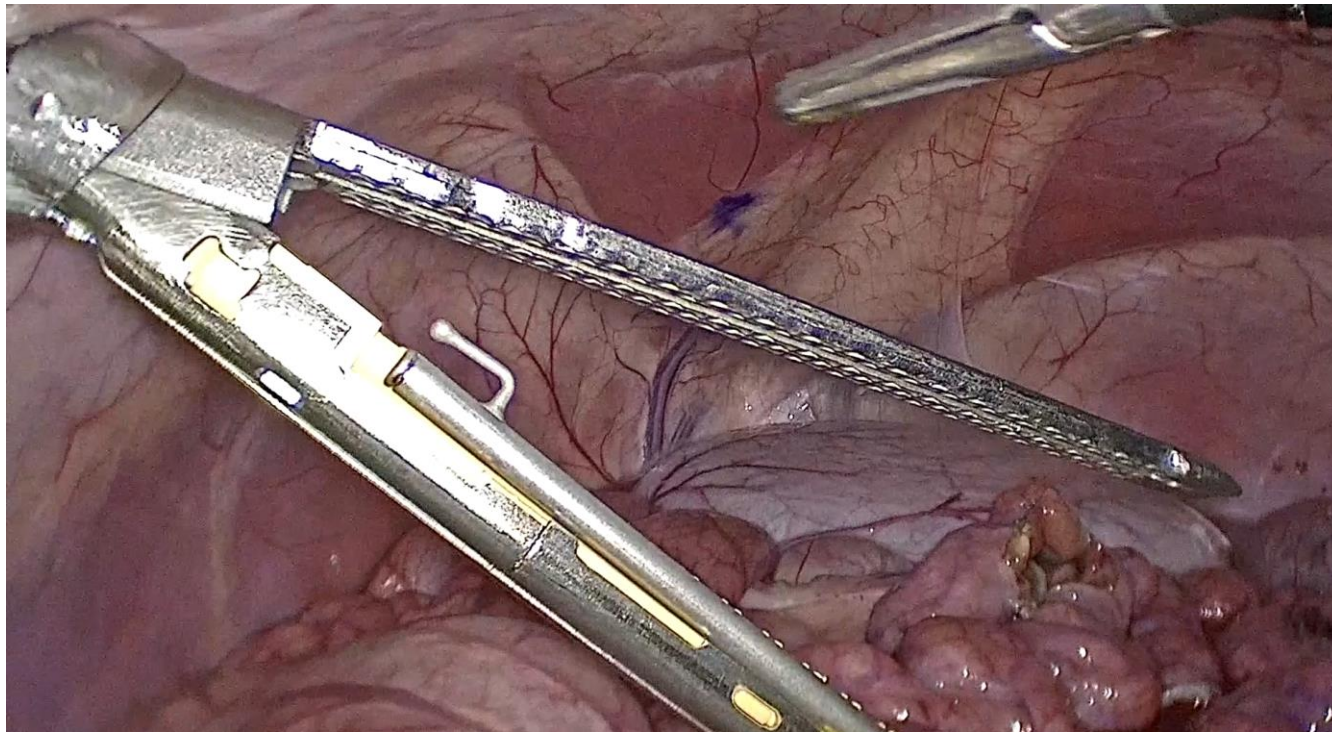
@DDW2023 Abstracts #46, 1108, 1272

FACILITATE SURGERY


TITAN

EASIER STAPLING

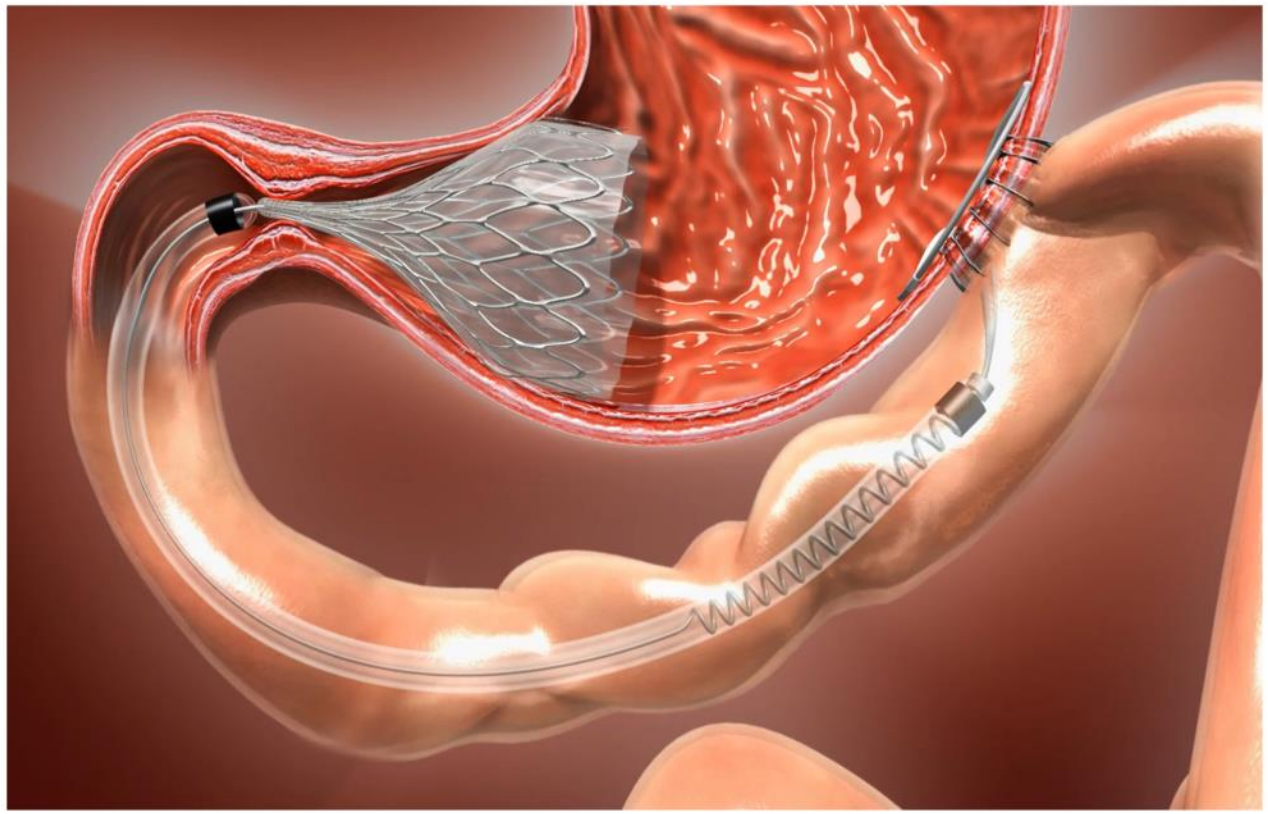




LESS INVASIVE ANASTOMOSIS

BY ENDOSCOPY…

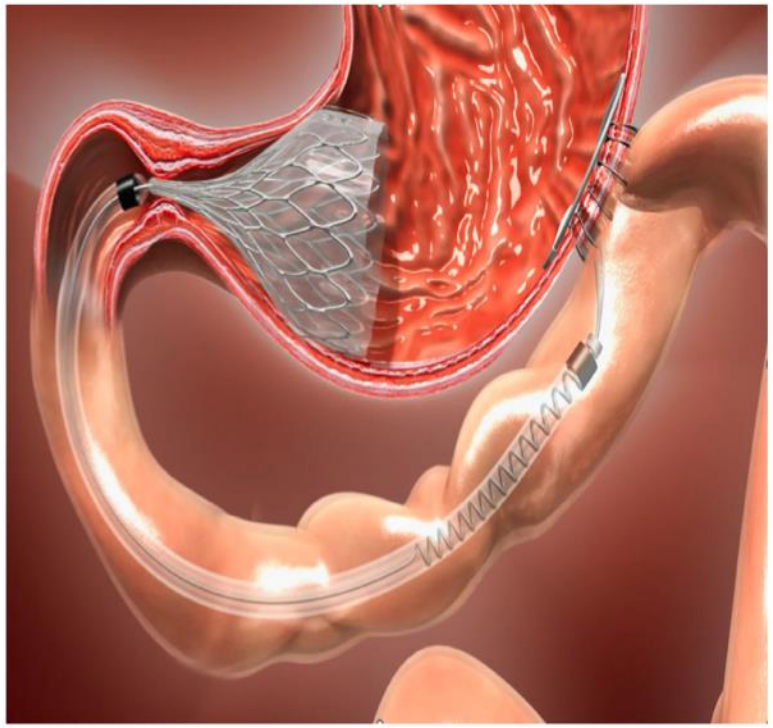
Innovation and Clinical Advancement: Leveraging the Gut as a Therapeutic Target



Scalable & Reversible Metabolic Surgery

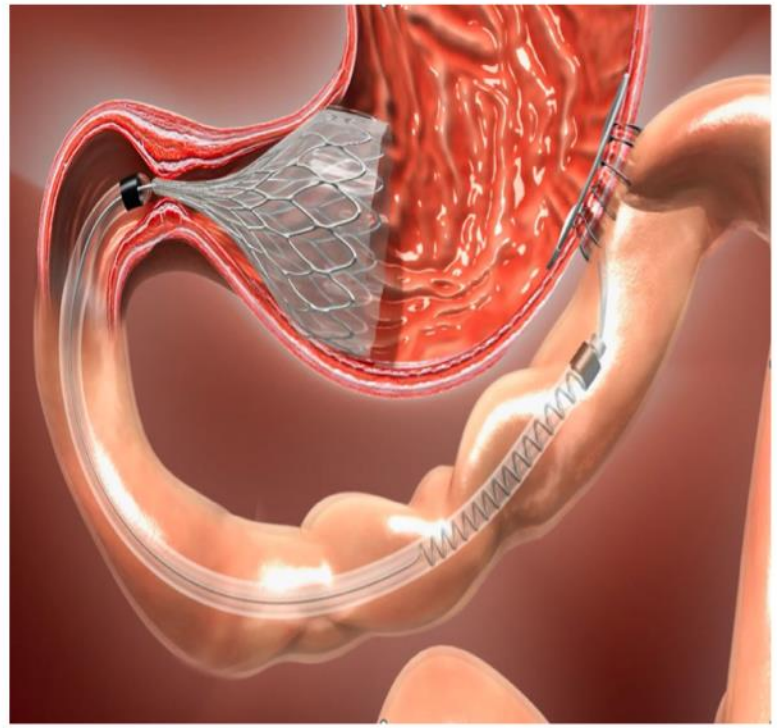
- **Organ sparing + modular**
- **Dual mechanism of action:** Gastric Restriction and duodenal bypass
- **Dynamic and Atraumatic Anchoring:** Minimize and mitigate migration risk
- **Light weight to maximize patient tolerance**
- **Endoscopic Delivery/Retrieval**
- **Integrate with a clinically established, safe, and easily reversable single laparoscopic gastrojejunal anastomosis**

Dynamic Non-Traumatic Anchoring

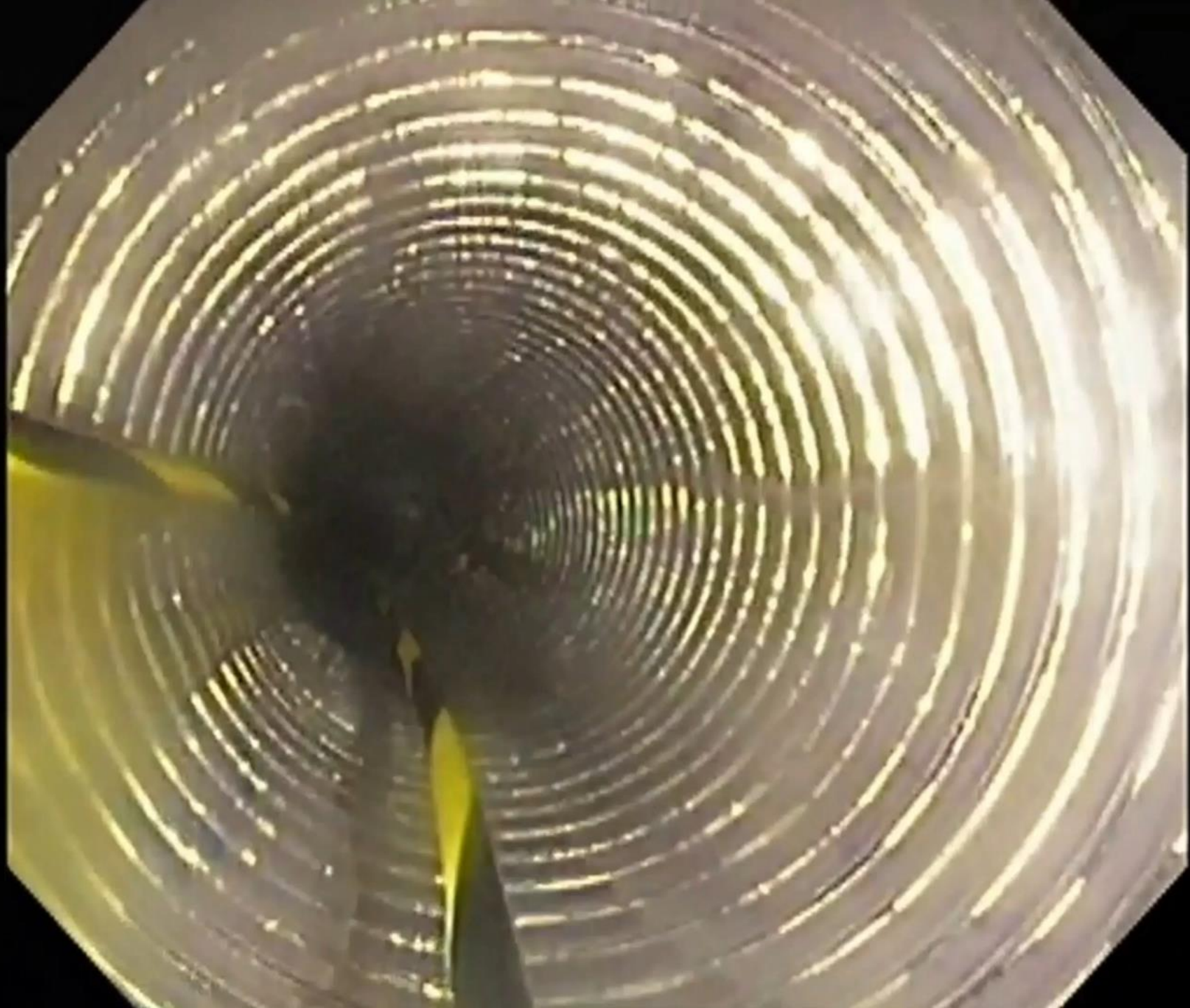


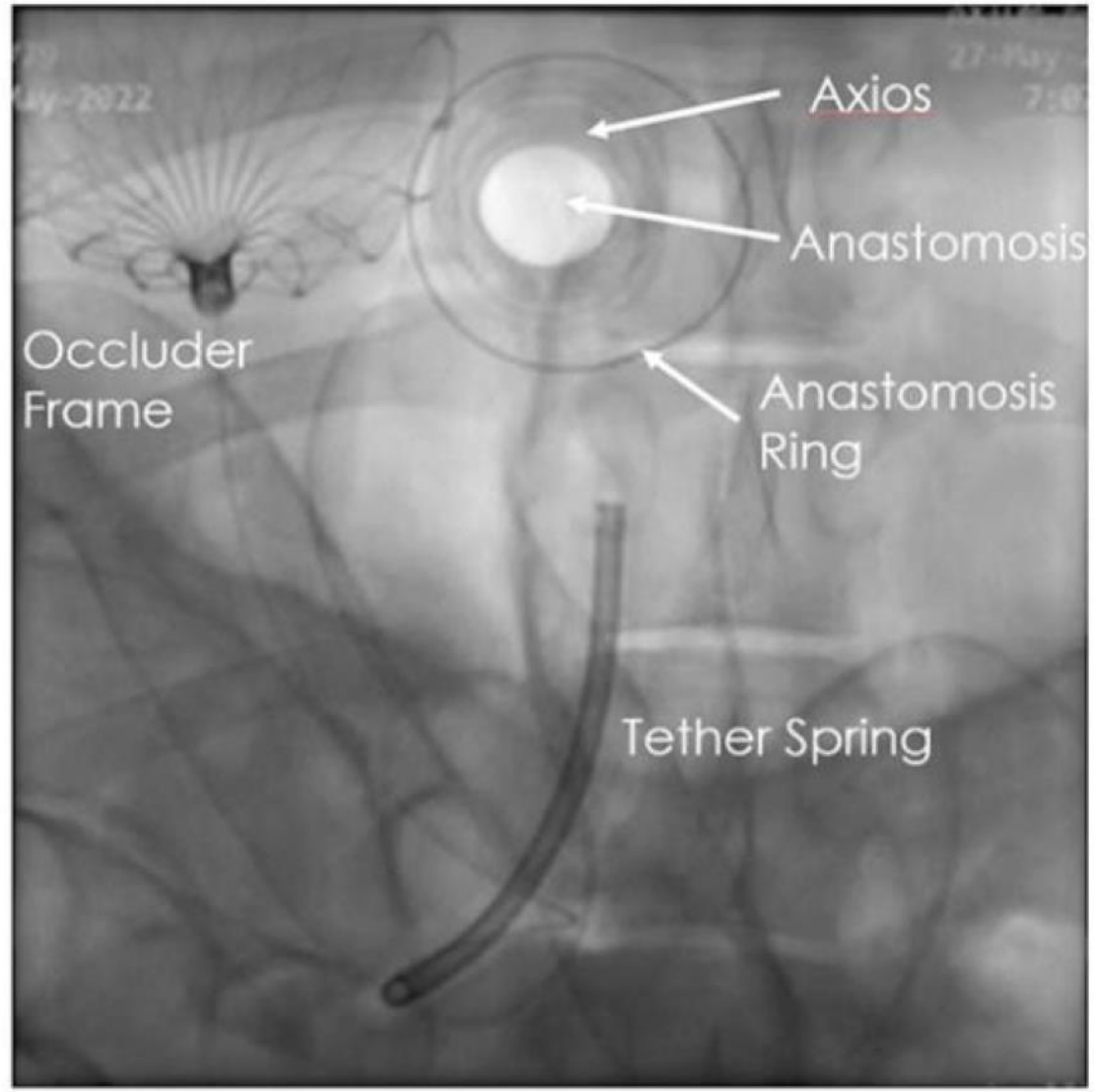
Neutral

Contraction / Dynamic Spring Adjustment



Neutral

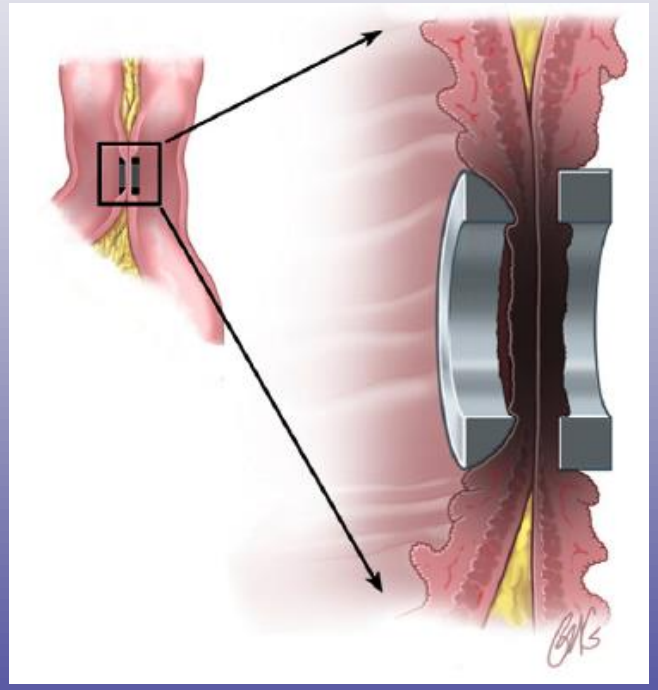



Axios
Anastomosis
Occluder
Frame
Anastomosis
Ring
Tether Spring

SAFER LESS INVASIVE ANASTOMOSIS

BY ENDOSCOPY…

Compression Anastomosis



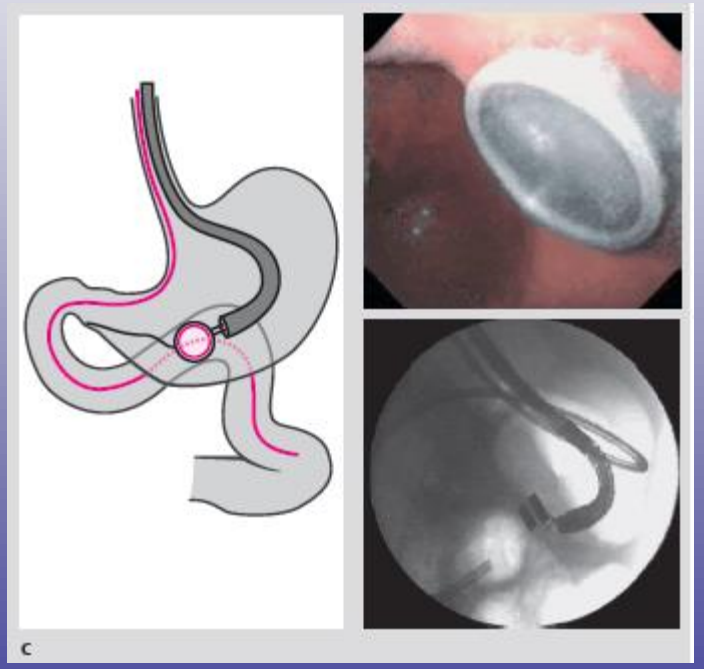
Jamshidi R, et al. J Ped Surg 2009

Tissue Remodeling

Tissue Necrosis

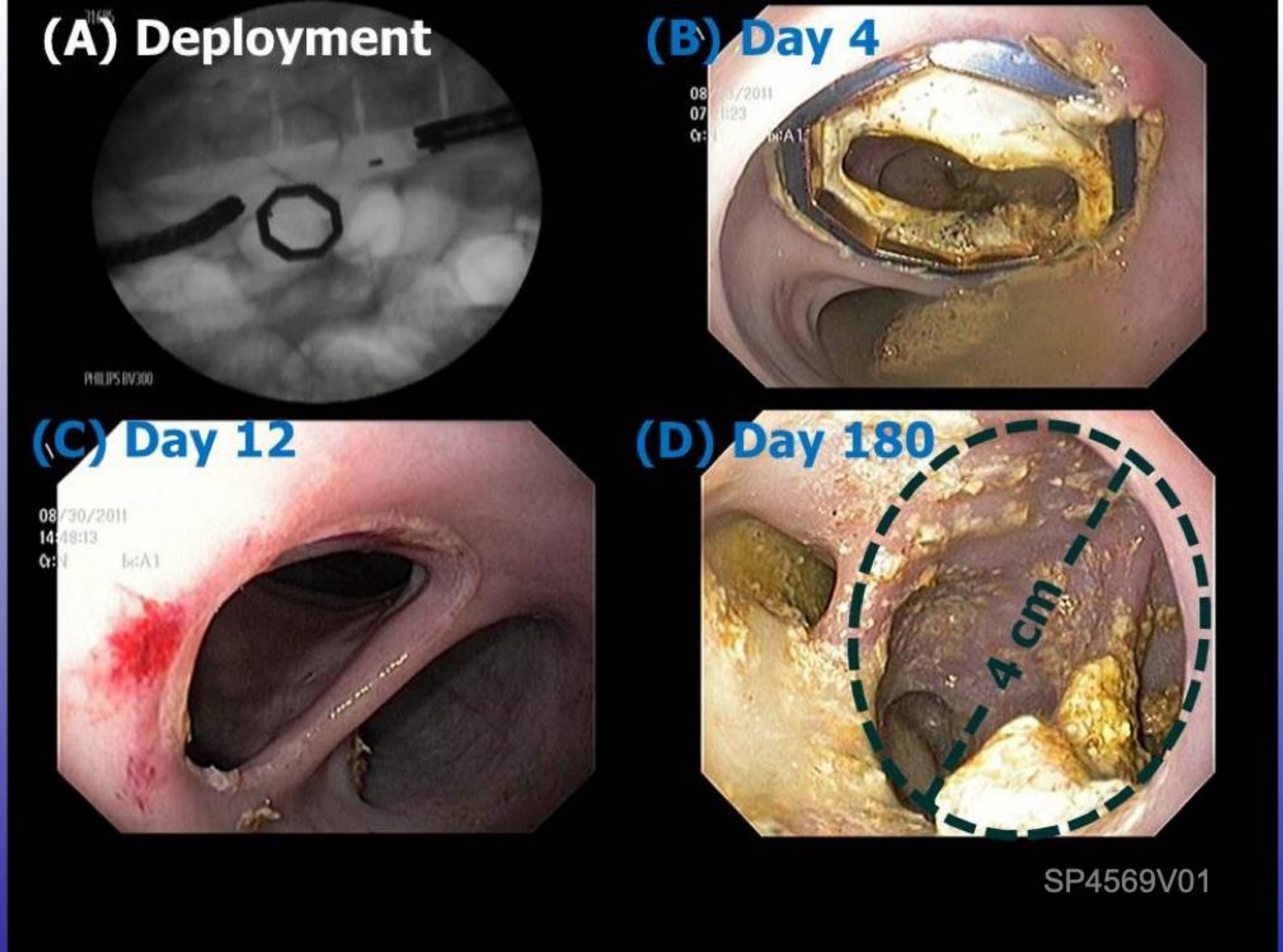
Tissue Remodeling

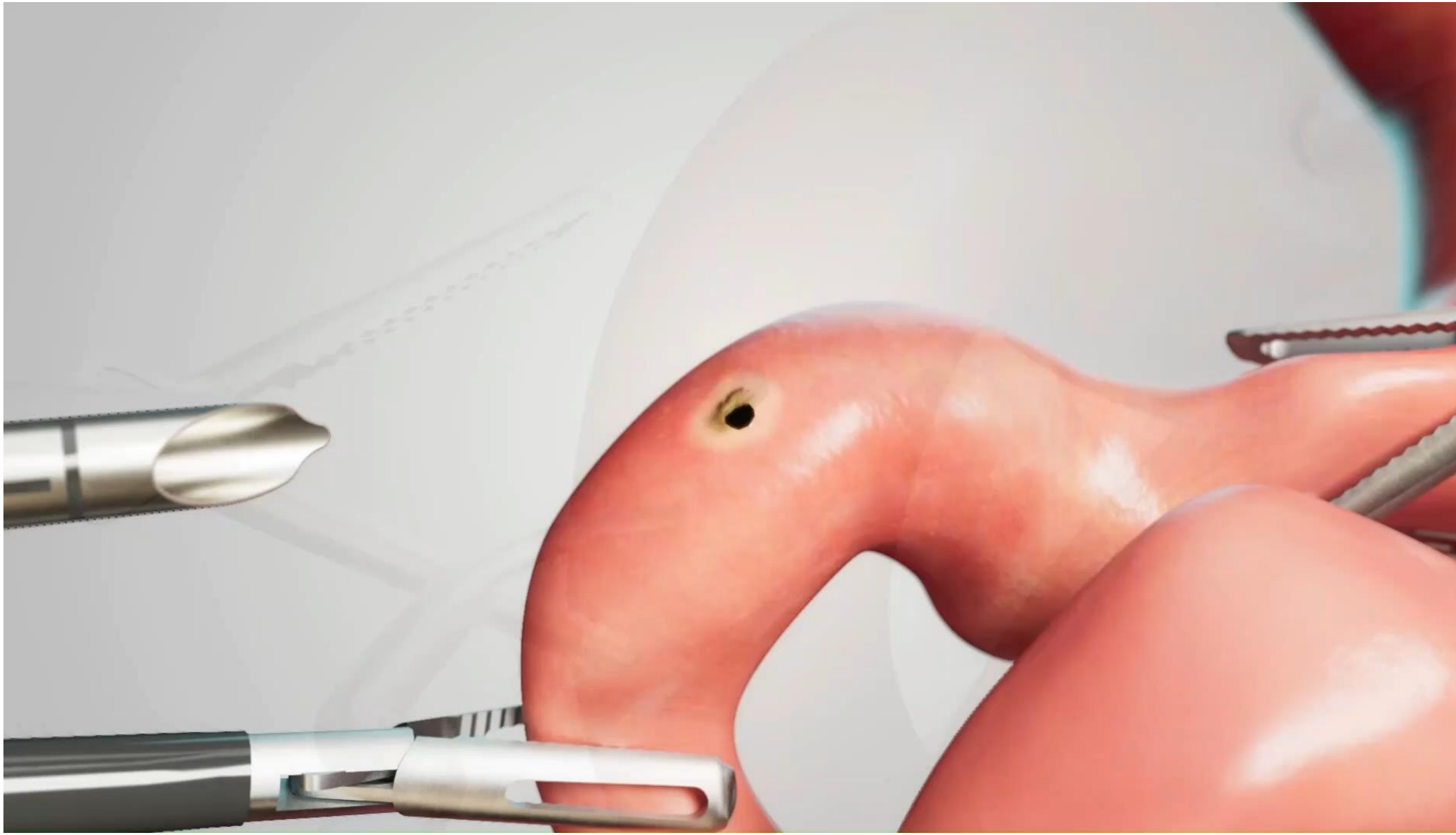
Human Magnetic Gastrojejunostomy



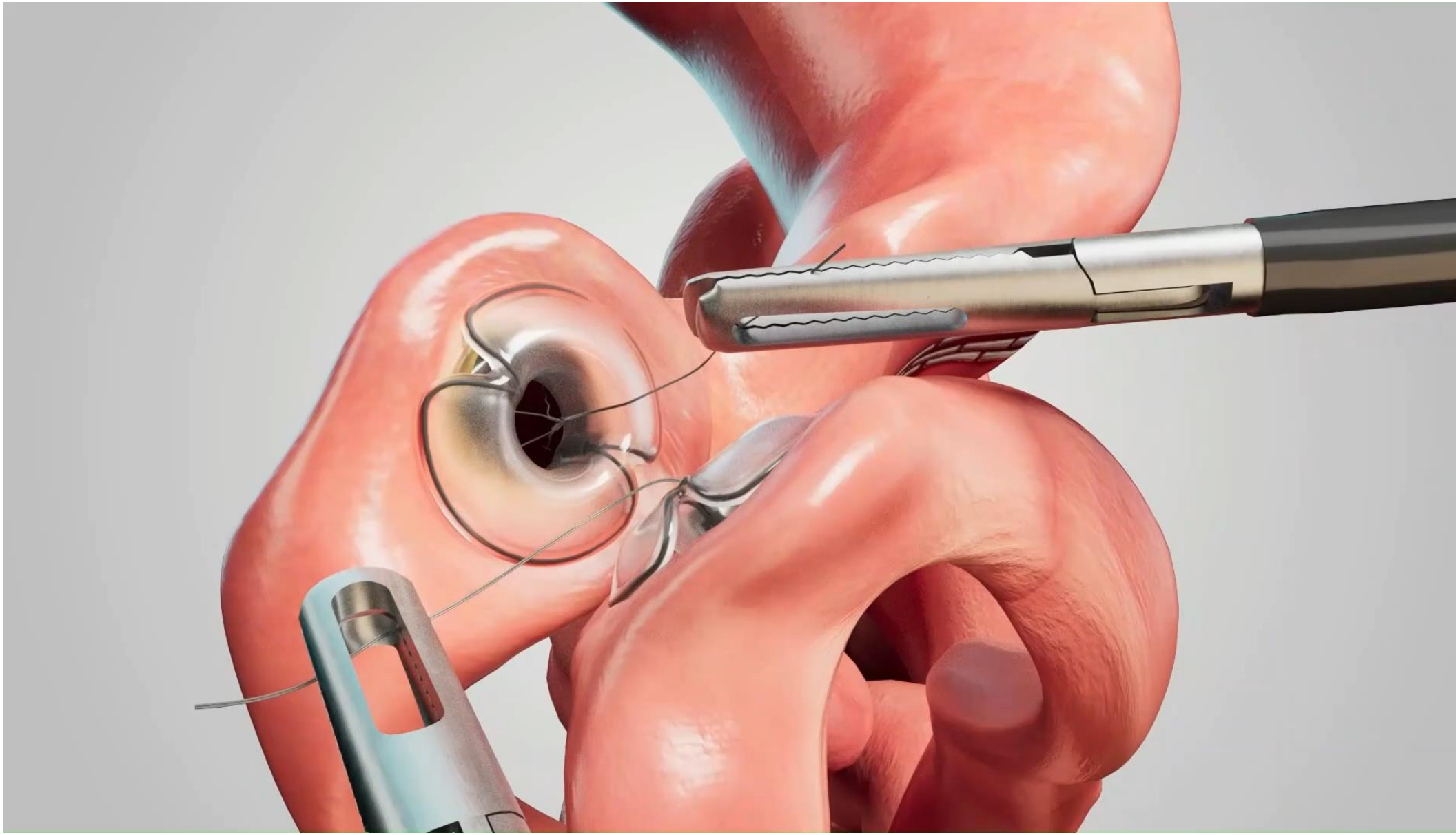
Cope, et al. Endoscopy 2009

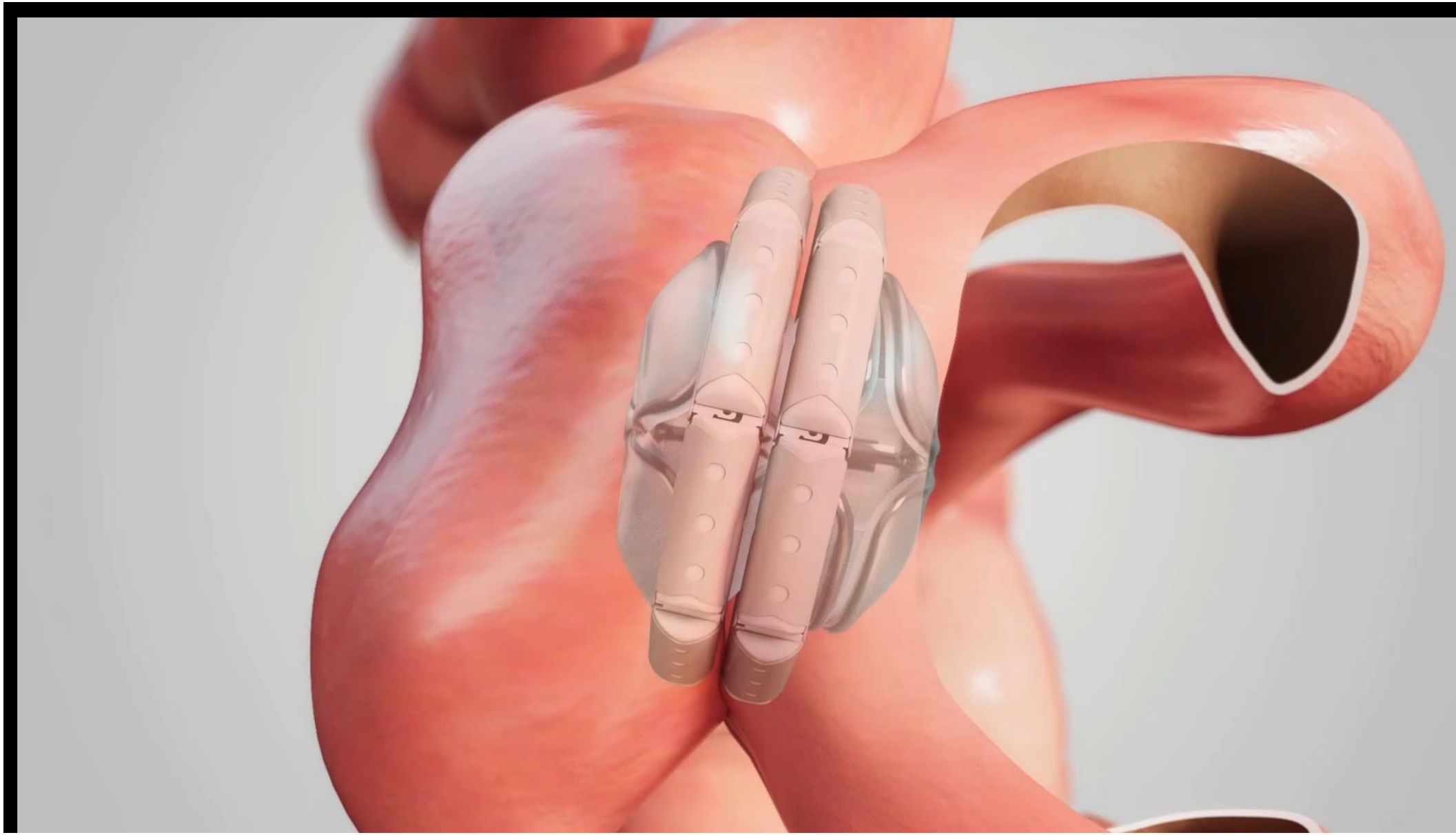
SP4569V01


(A) Deployment
(B) Day 4
(C) Day 12
(D) Day 180
4 cm
SP4569V01

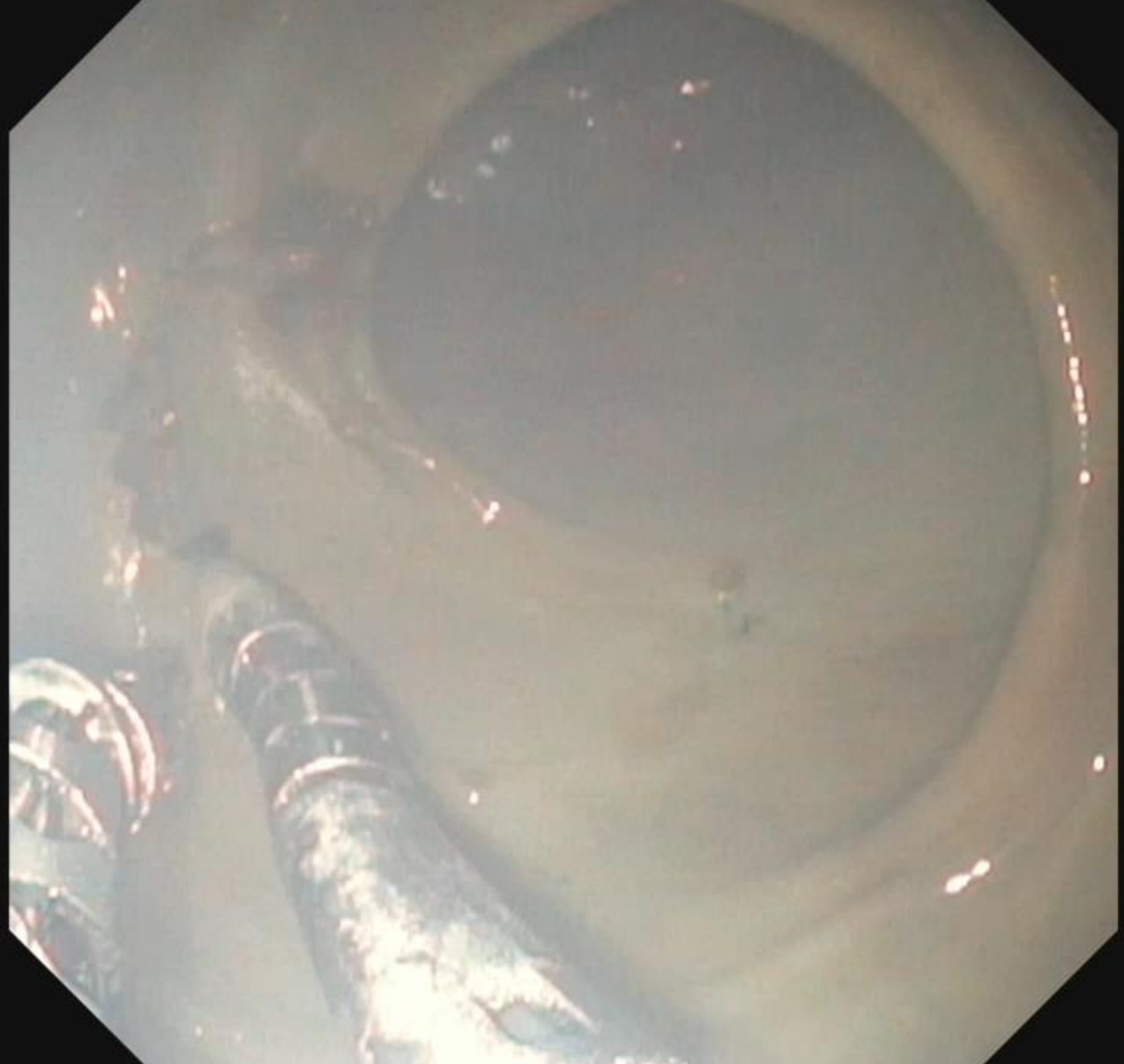


Deliver FLEXAGON™





ENDO ROBOTICS



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FUTURE

LESS AGGRESSIVE APPROACH (From the surgical point of view)

MI or/and Endoscopic Procedures

REVISIONS…..

ENDOROBOTICS

PLUS: REAL GOOD MEDICATIONS

WE REACH MUCH MORE PEOPLE IN NEED

EVEN IF REMISSIONS ARE TEMPORARY AND NEED NEW OR REINTERVENTIONS