

HYBRID METABOLIC AND BARIATRIC INTERVENTIONS

- Natan Zundel MD FACS FASMBS FIFSO (Hon)
- PROFESSOR OF SURGERY
- University at Buffalo, NY
- Jackson North Medical Center, Miami
- Executive Director FELAC

Disclosures

Ethicon Endosurgery

Medtronic

Olympus

Boston Scientific

GI Windows

Advantage Bariatrics

Sager

Consultant/Speaker

Consultant/Speaker

Consultant/ Speaker

Advisory Board

Advisory Board

Consultant

Advisory Board

WHY HYBRID APPROACH IS NEEDED FOR BARIATRIC /METABOLIC PROCEDURES

WE ARE NOT FULLY READY TO DO IT ONLY BY ENDOSCOPY OR PERCUTANEOUSLY

WE ARE NOT READY TO REACH SOME SPECIFIC PLACES WITHOUT SURGICAL
INTERVENTIONS

WE DON'T HAVE STILL FULL TECHNOLOGY TO SAFELY DELIVER DEVICES WITHOUT
SURGERY

TO HELP CLOSE THE BRIDGE BETWEEN LAPAROSCOPY AND ENDOSCOPY WHILE STILL BEING
EVEN LESS INVASIVE THAN BEFORE

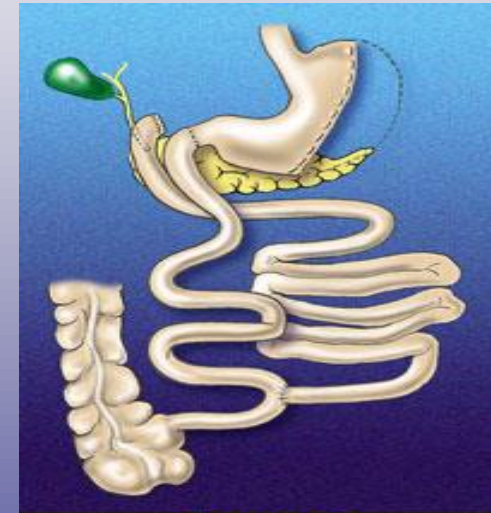
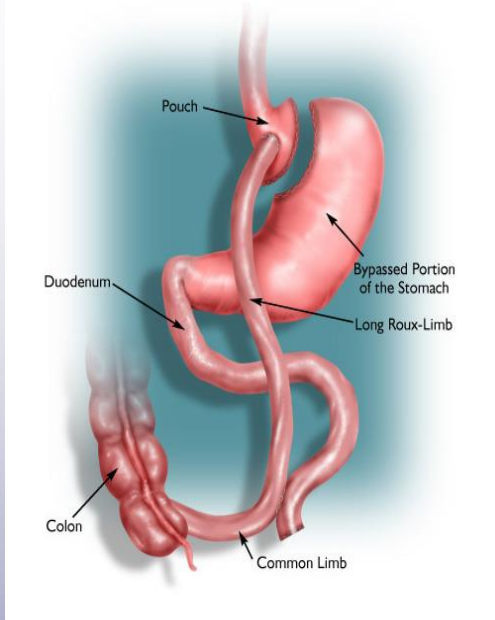
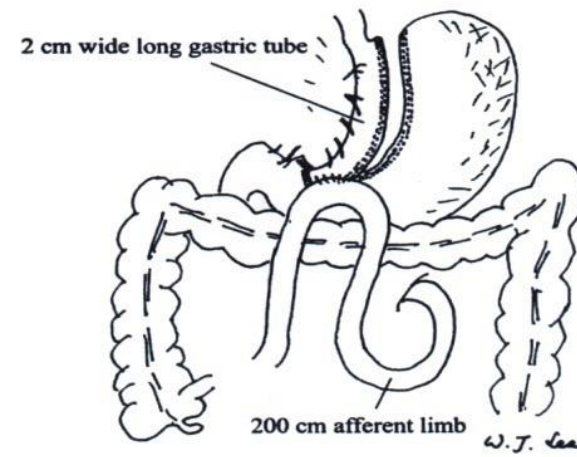
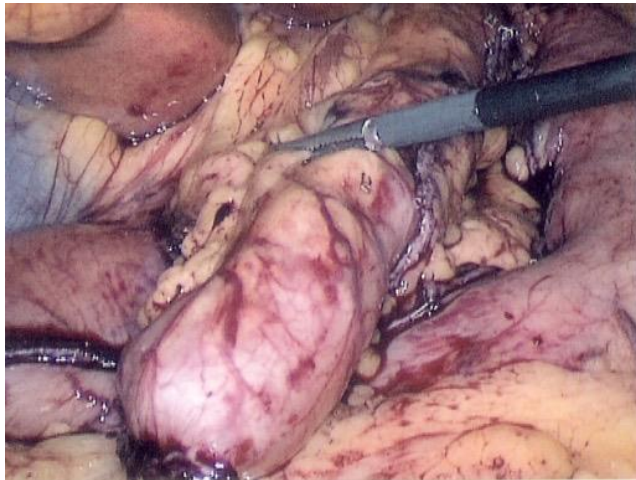
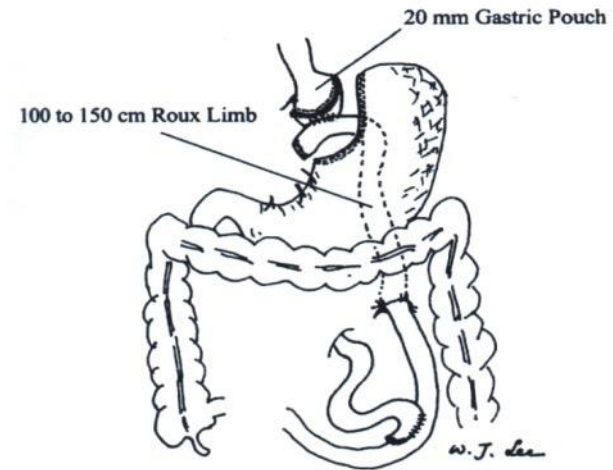


FIGURE 5
BILIOPANCREATIC
DIVERSION (BPD) WITH
DUODENAL SWITCH
(HESS/MARCEAU)

OAGB

OAGB: Oesophago-gastric bypass with Roux-Y bypass
(Billroth II)



La seguridad es lo primero ✓ 😊



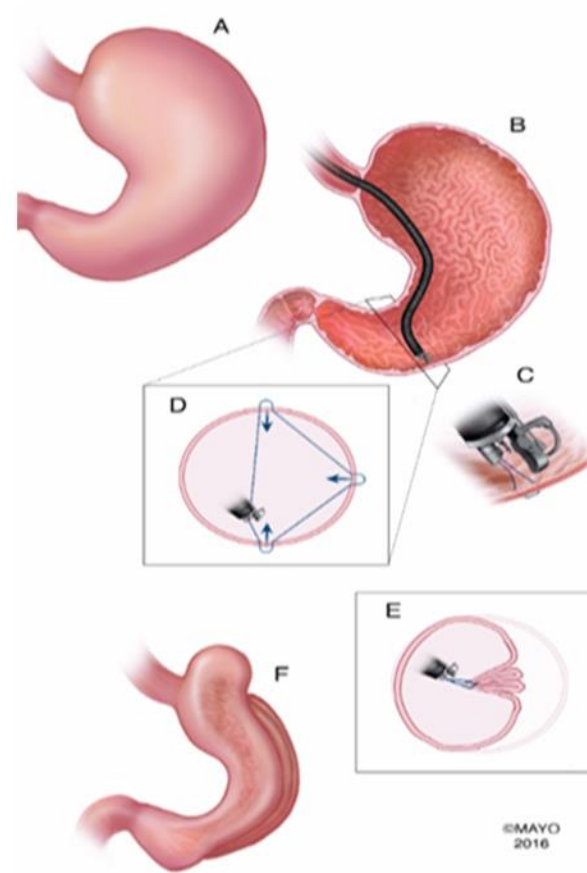
ASMBS Metabolic and Bariatric Surgery Numbers Estimation for 2022

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	158,000	173,000	179,000	193,000	196,000	216,000	228,000	252,000	256,000	199,000	262,893	279,967
Sleeve	17.8%	33.0%	42.1%	51.7%	53.6%	58.1%	59.4%	61.4%	59.4%	61.4%	58.1%	57.4%
RYGB	36.7%	37.5%	34.2%	26.8%	23.0%	18.7%	17.8%	17.0%	17.8%	20.8%	21.5%	22.2%
Band	35.4%	20.2%	14%	9.5%	5.7%	3.4%	2.7%	1.1%	0.9%	1.2%	0.4%	0.9%
BPD-DS	0.9%	1.0%	1.0%	.4%	0.6%	0.6%	0.7%	0.8%	0.9%	1.8%	2.1%	2.2%
Revision	6.0%	6.0%	6.0%	11.5%	13.6%	14.0%	14.1%	15.4%	16.7%	11.1%	11.8%	11.0%
SADI	-	-	-	-	-	-	-	-	-	0.2%	0.4%	0.6%
OAGB	-	-	-	-	-	-	-	-	-	0.7%	0.4%	0.4%
Other	3.2%	2.3%	2.7%	0.1%	3.2%	2.6%	2.5%	2.3%	2.4%	0.6%	2.8%	2.2%
Balloon	-	-	-	-	0.3%	2.6%	2.8%	2.0%	1.8%	1.4%	1.6%	1.6%
ESG	-	--	-	-	-	-	-	-	-	0.8%	0.8%	1.6%

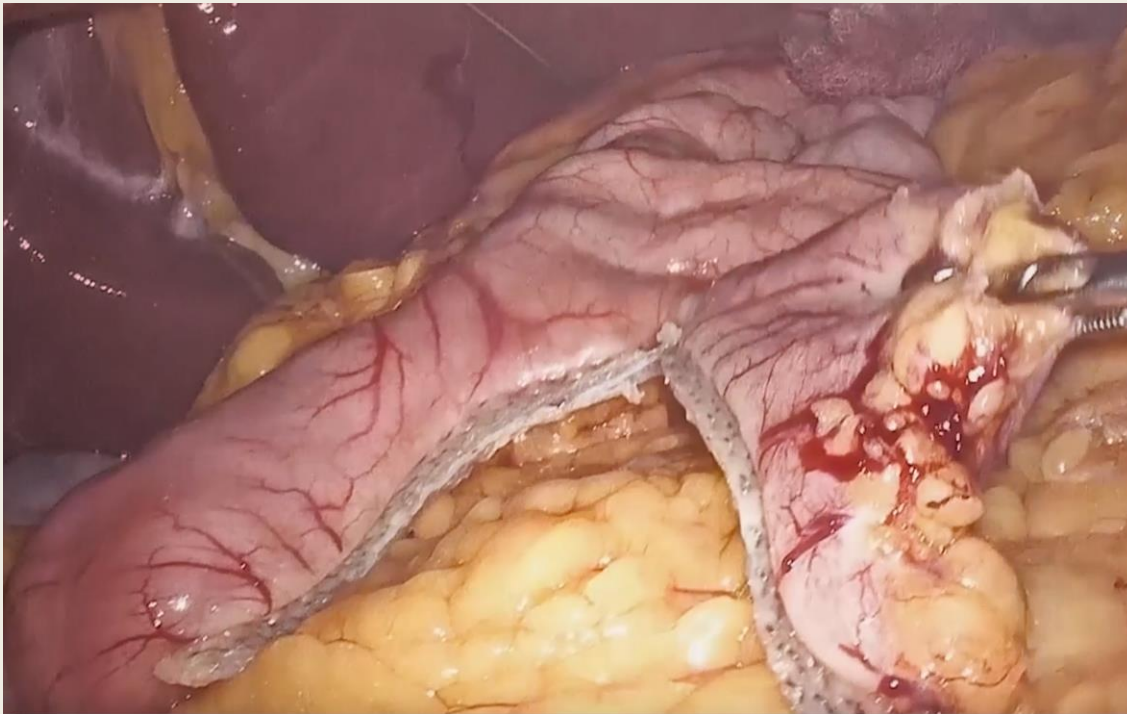
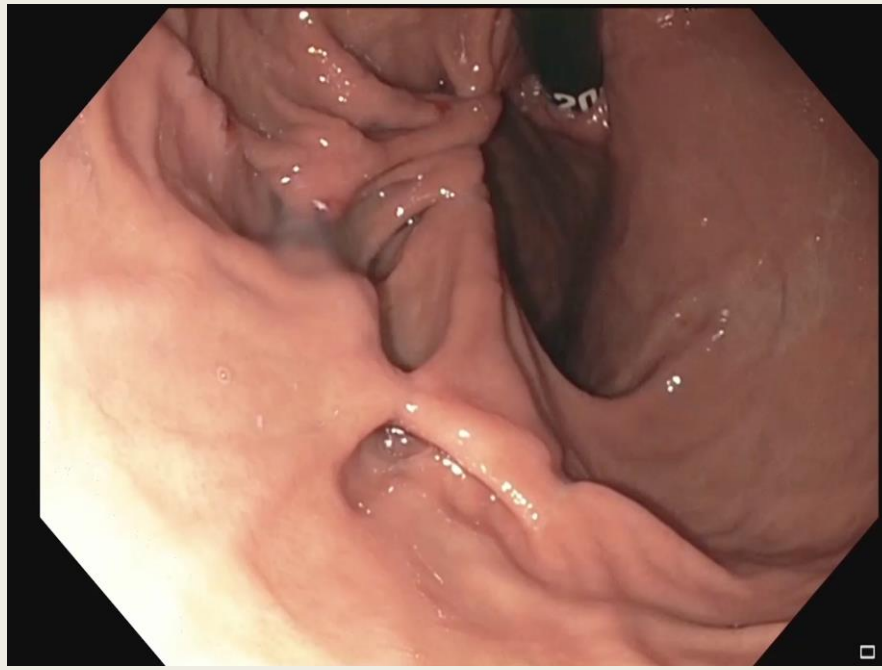
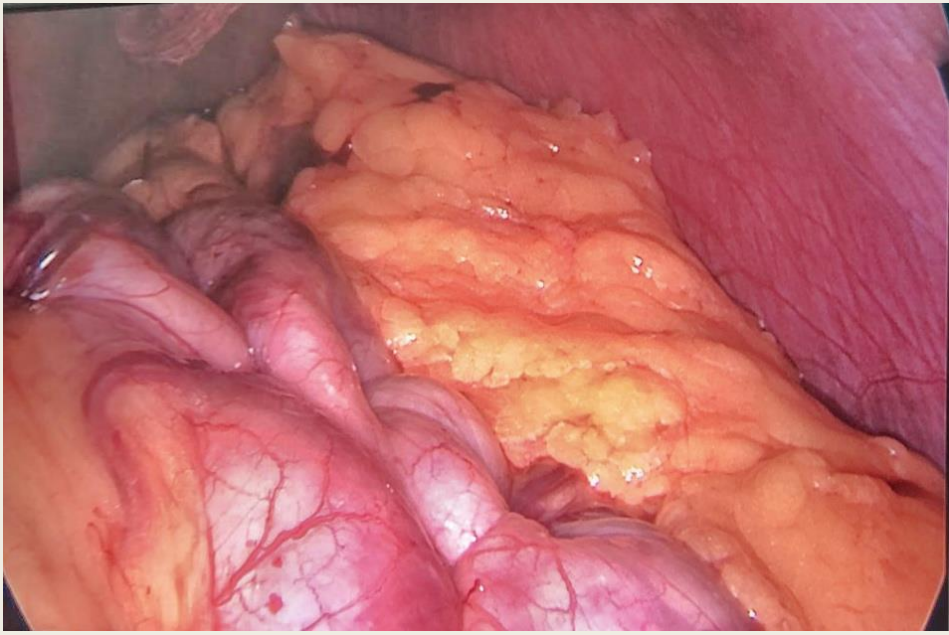
WHY ENDOSCOPY and MEDICATIONS?



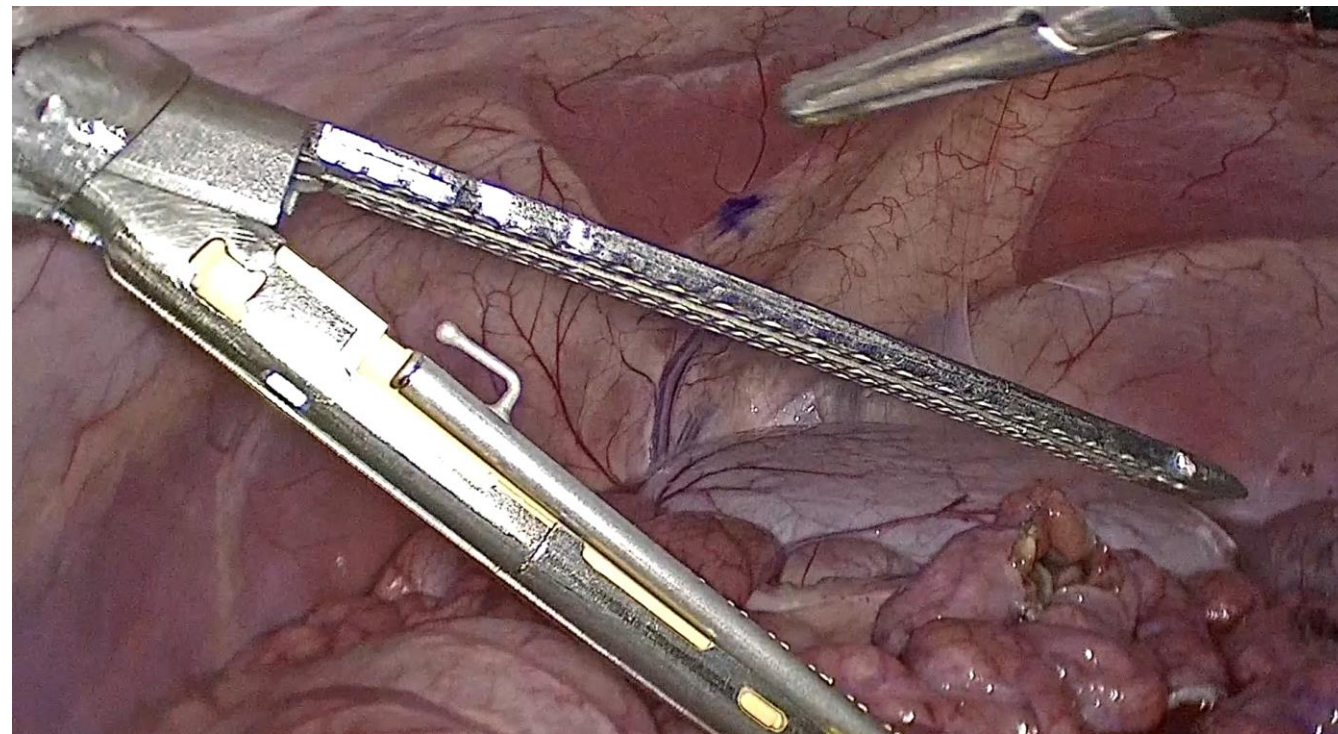
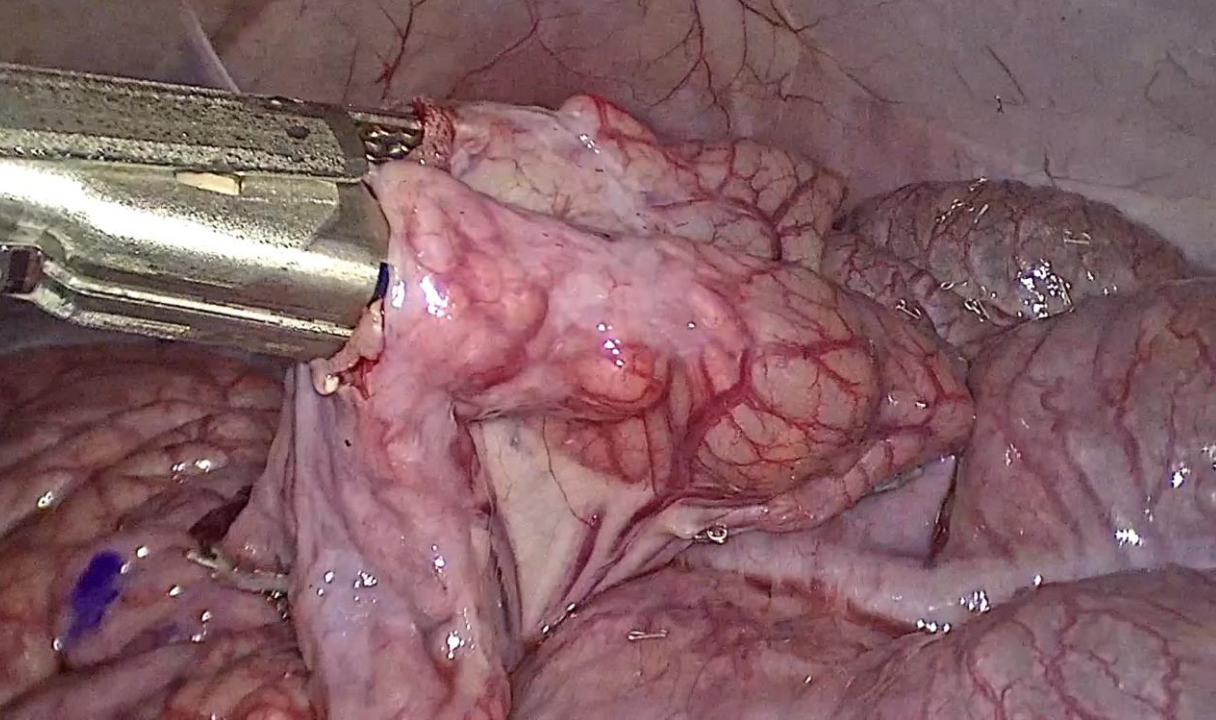
Endoscopic Sleeve Gastroplasty



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



EASIER STAPLING



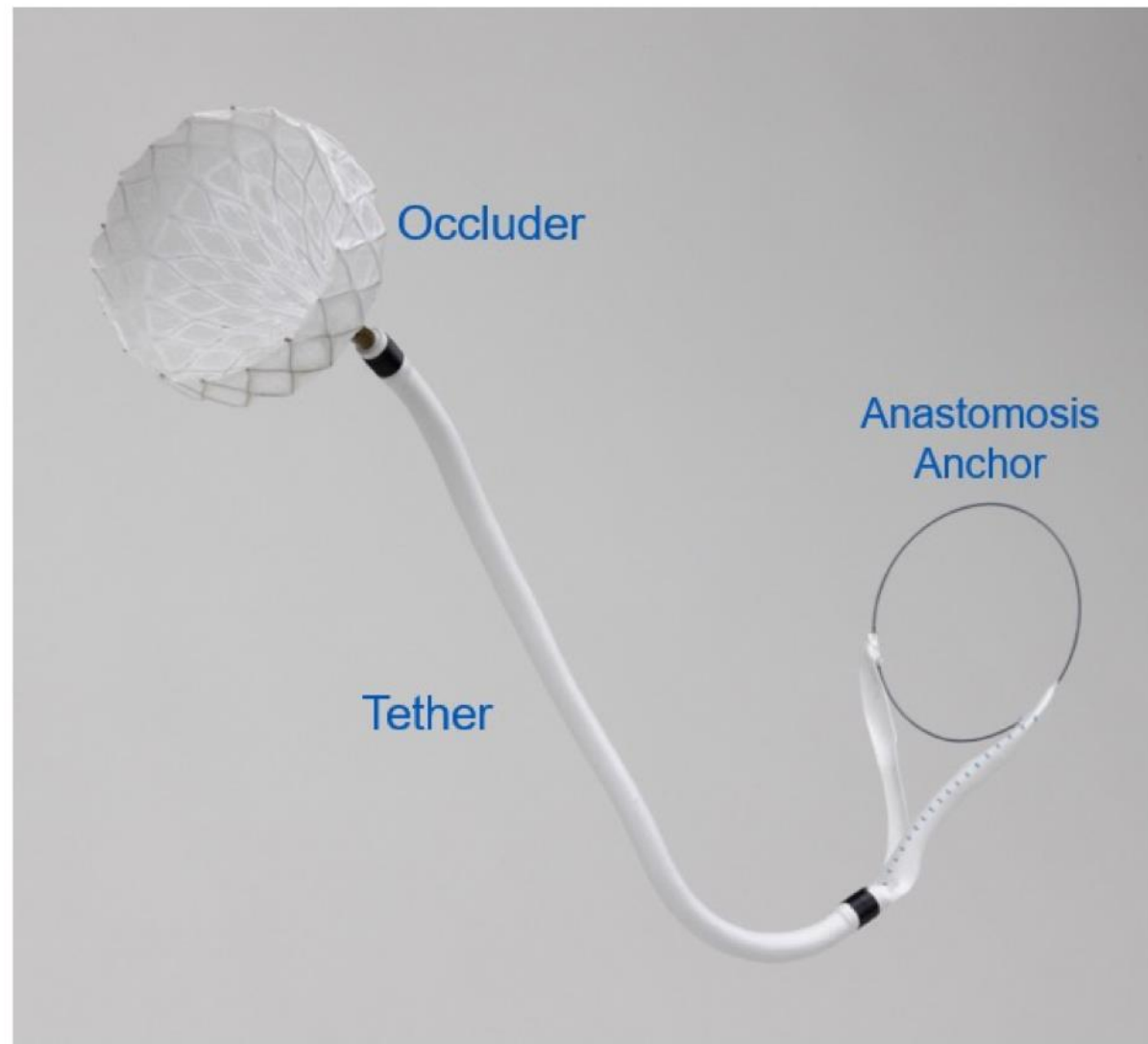
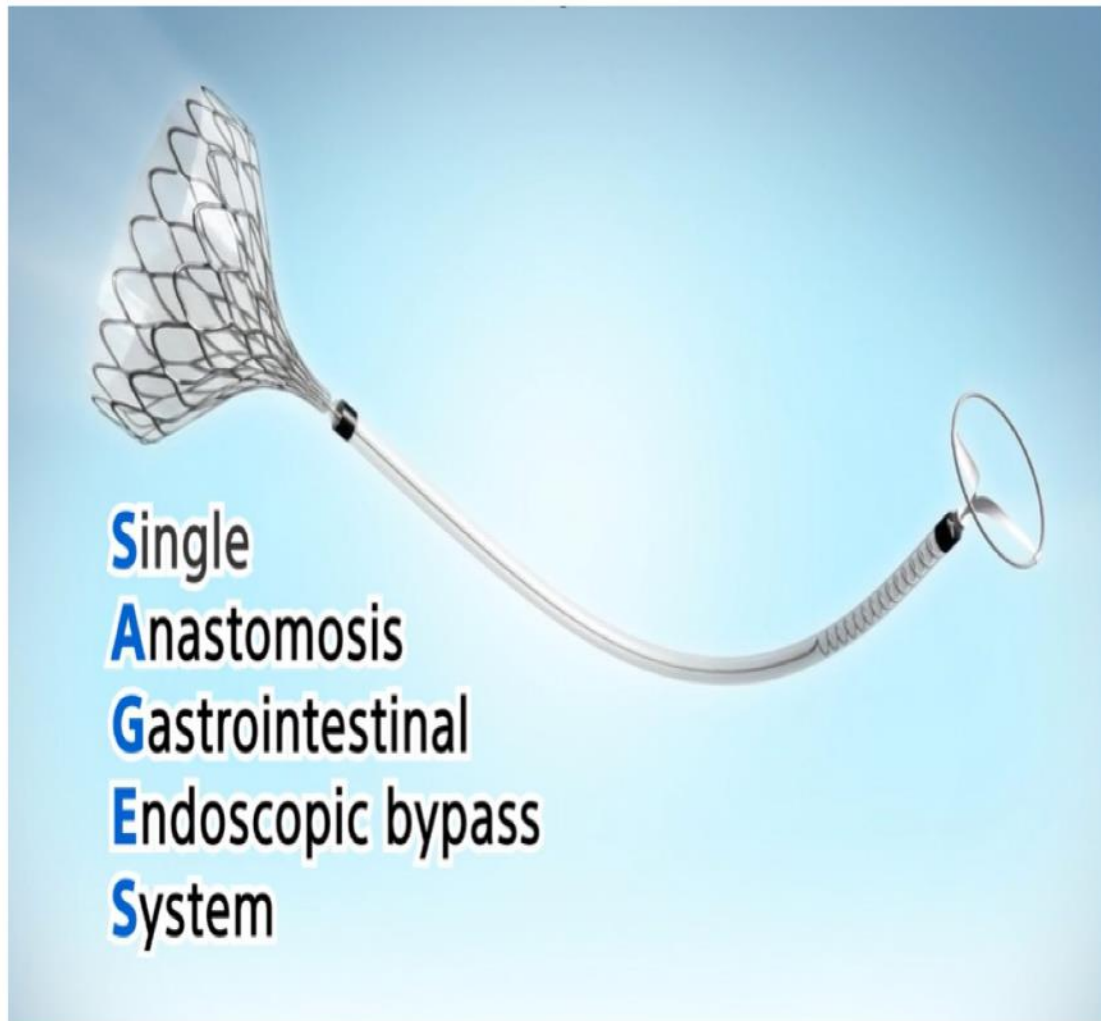
LESS INVASIVE ANASTOMOSIS

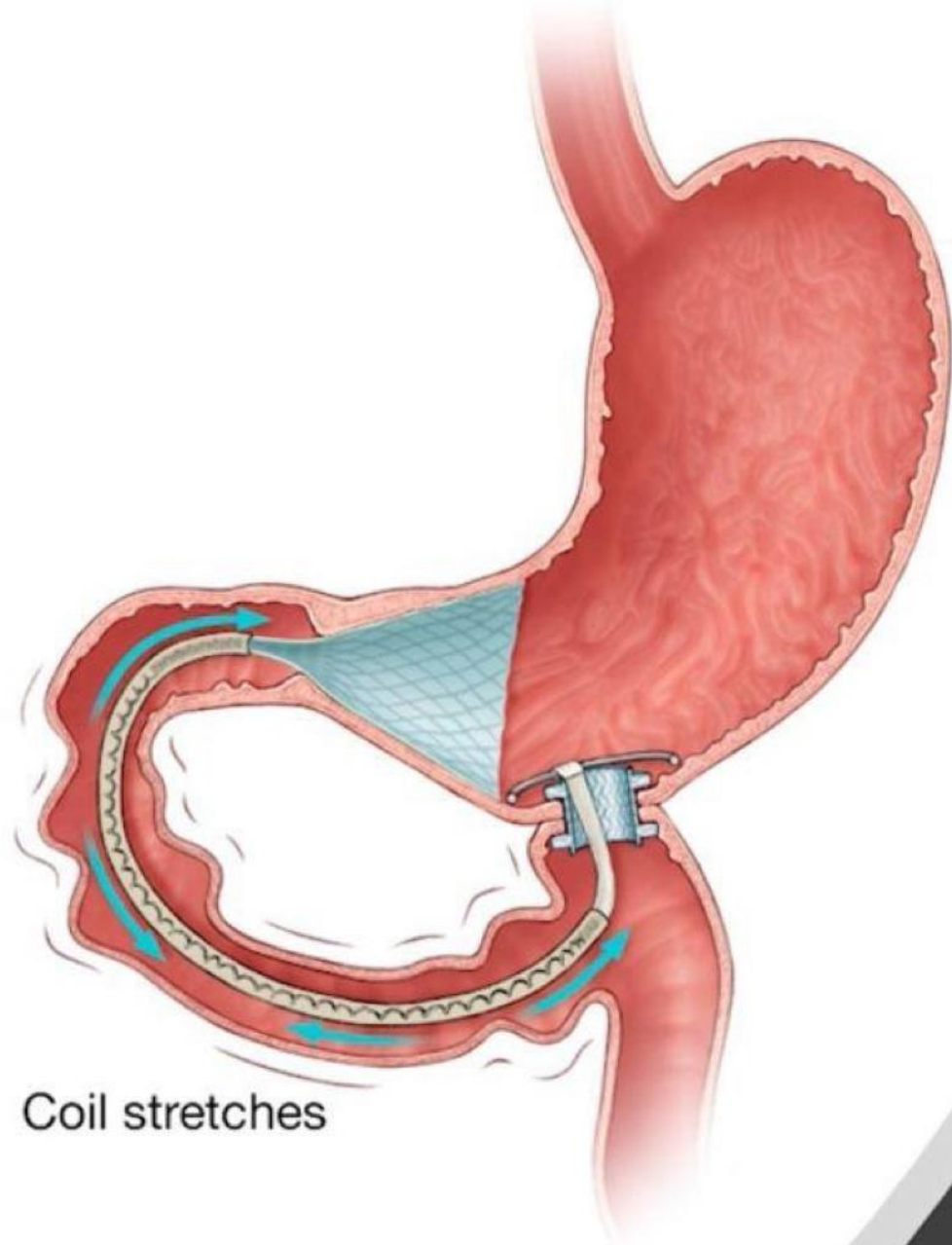
BY ENDOSCOPY...



OMAR M. GHANEM MD FACS
ASSOCIATE PROFESSOR OF SURGERY
MAYO CLINIC

BARHAM ABU DAYYEH MD
PROFESSOR OF MEDICINE
MAYO CLINIC

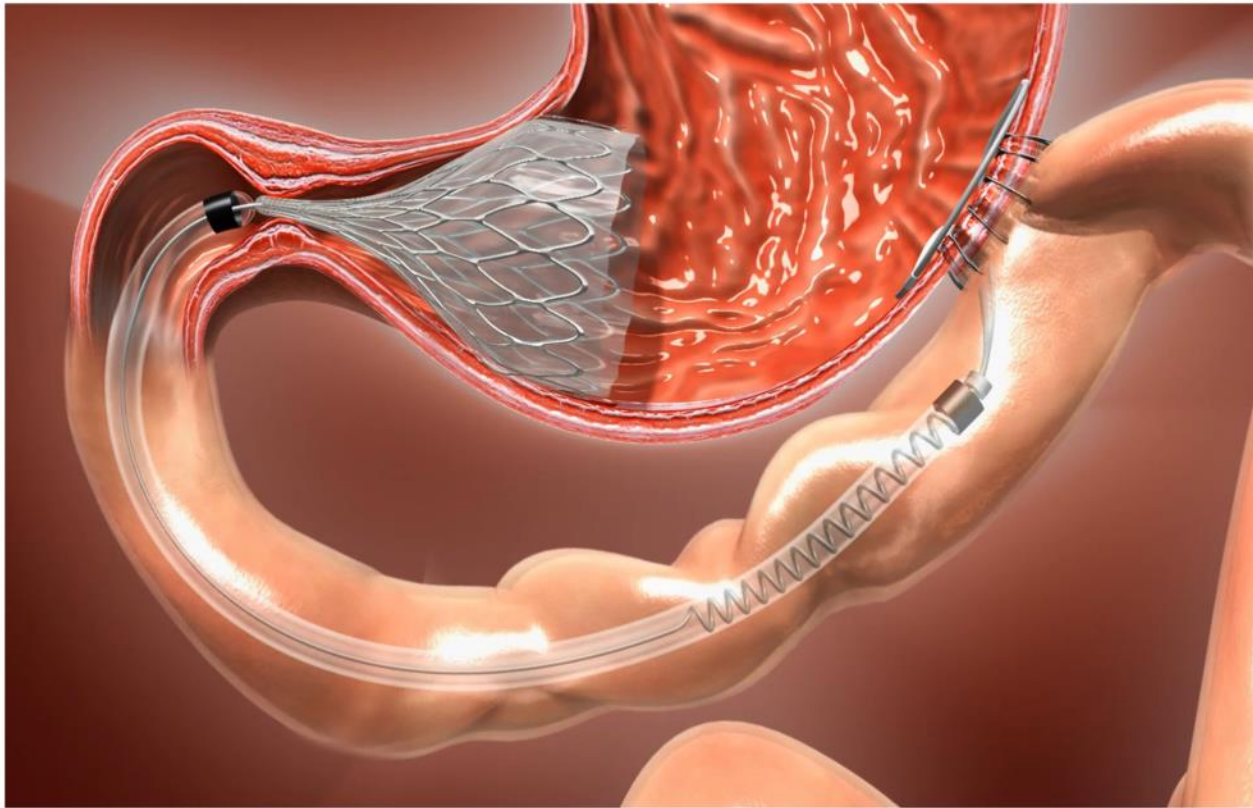




Coil stretches

Novel Dynamic Equilibrium
Anchoring System that
Accommodates the Motility
of the GI Tract and Prevents
Migration

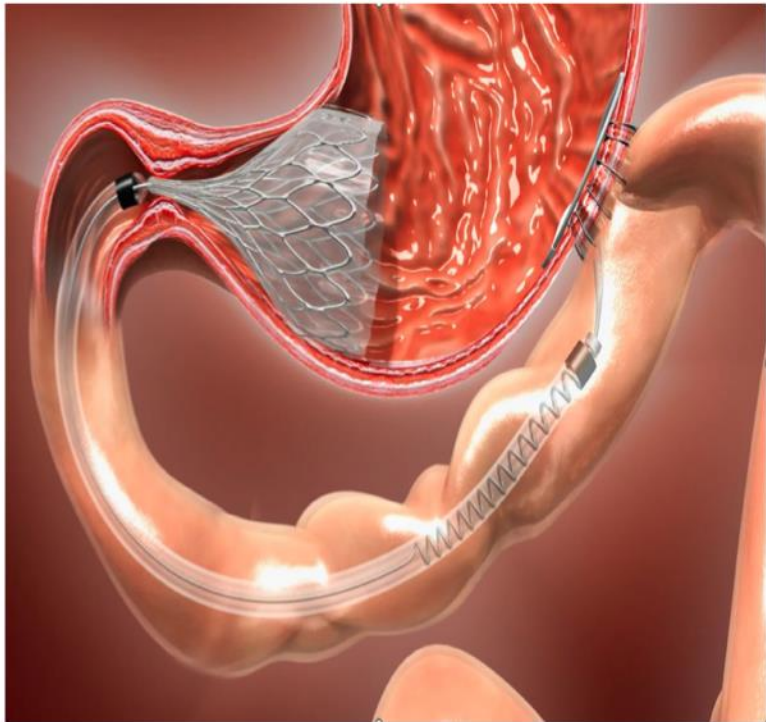
Innovation and Clinical Advancement: Leveraging the Gut as a Therapeutic Target



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 reversible single laparoscopic gastrojejunal anastomosis**

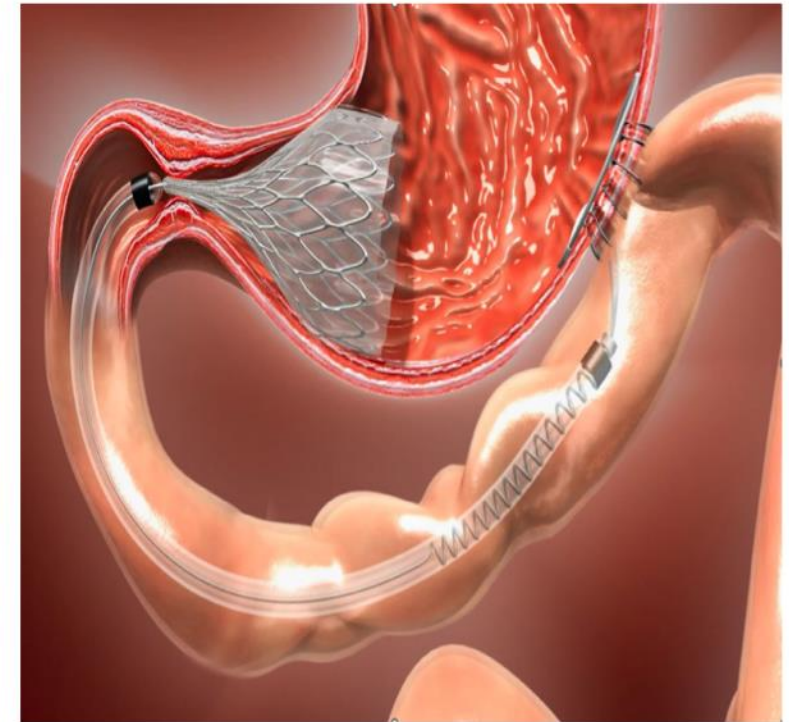
Dynamic Non-Traumatic Anchoring



Neutral

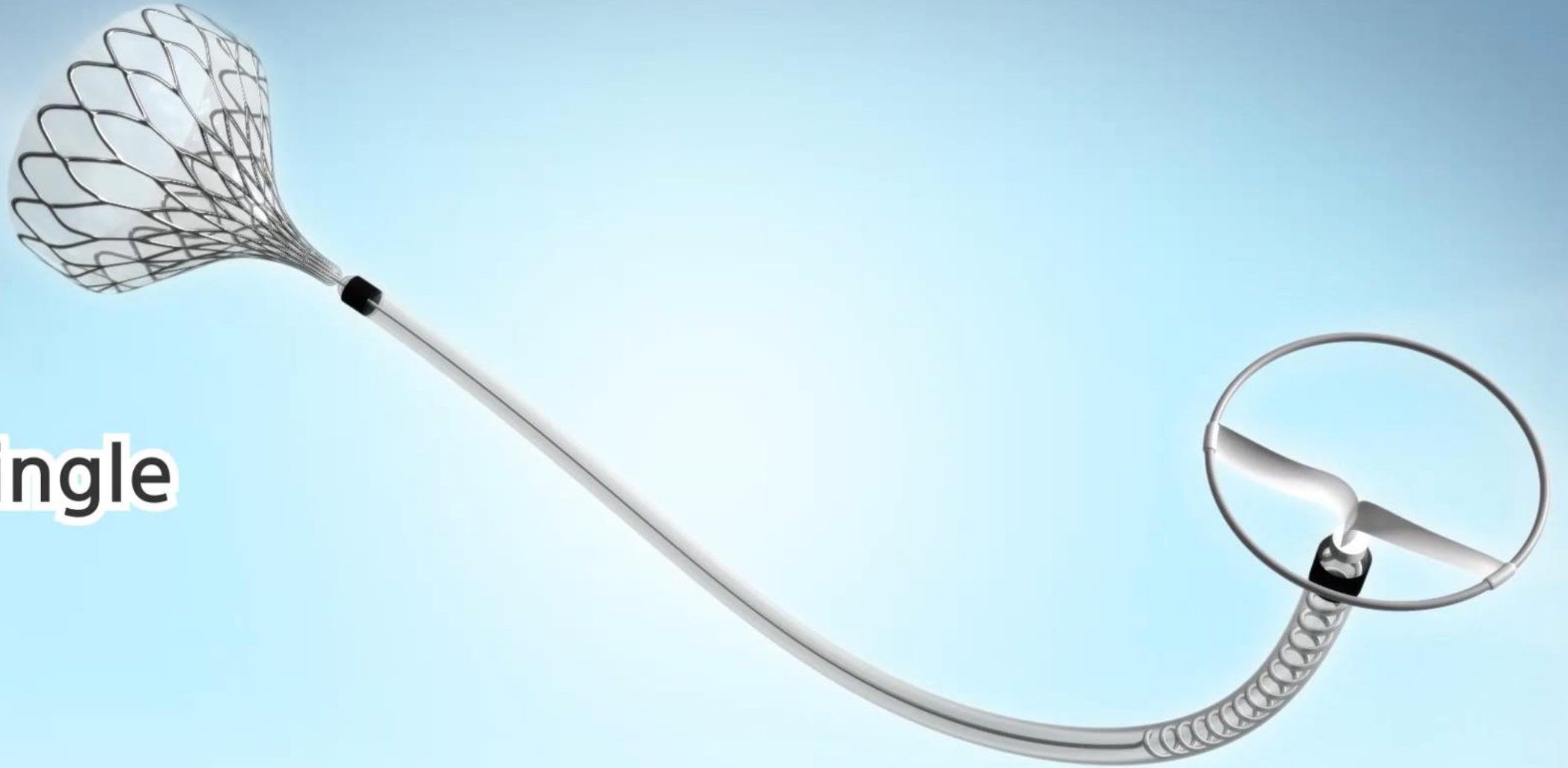


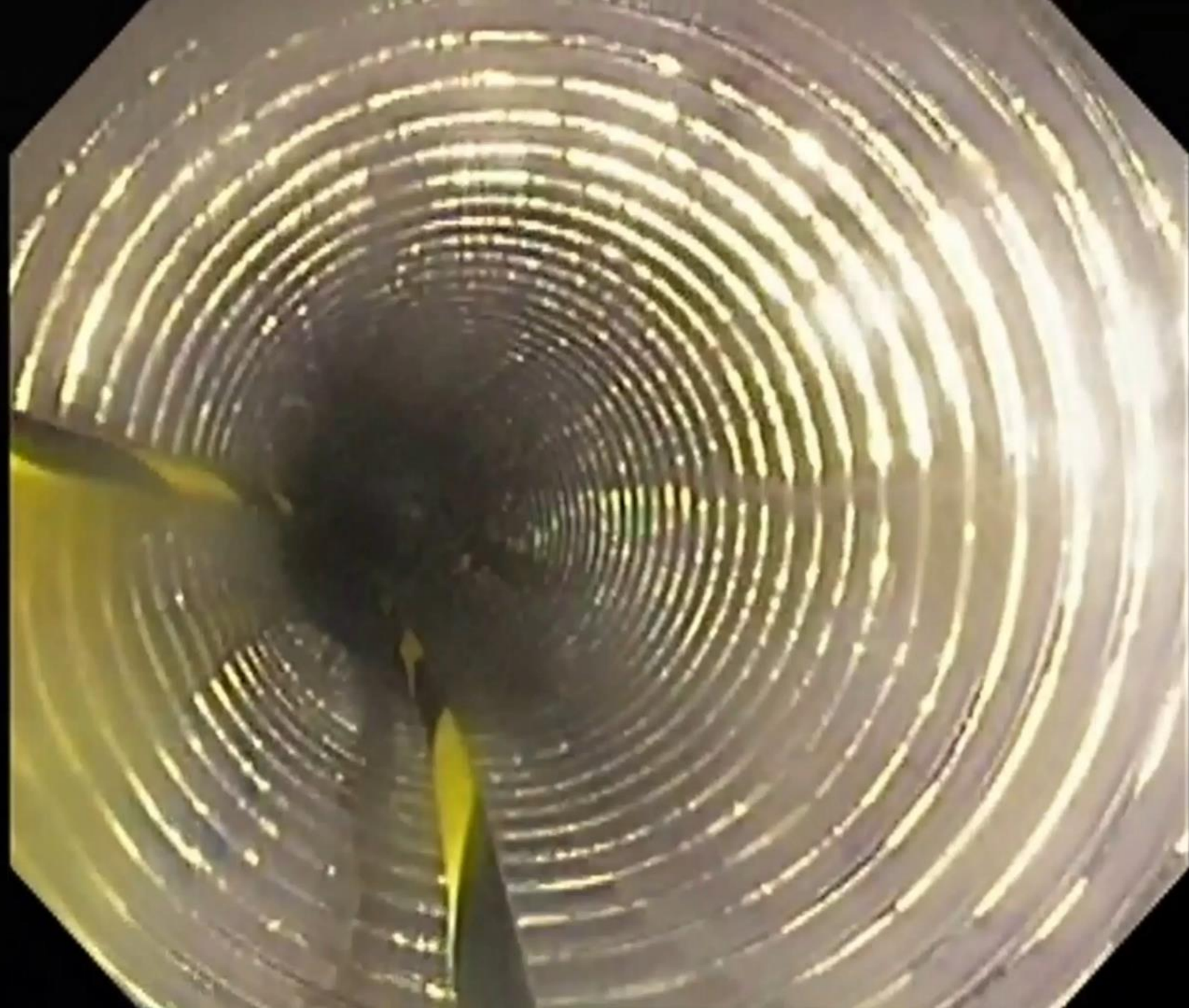
Contraction / Dynamic Spring Adjustment

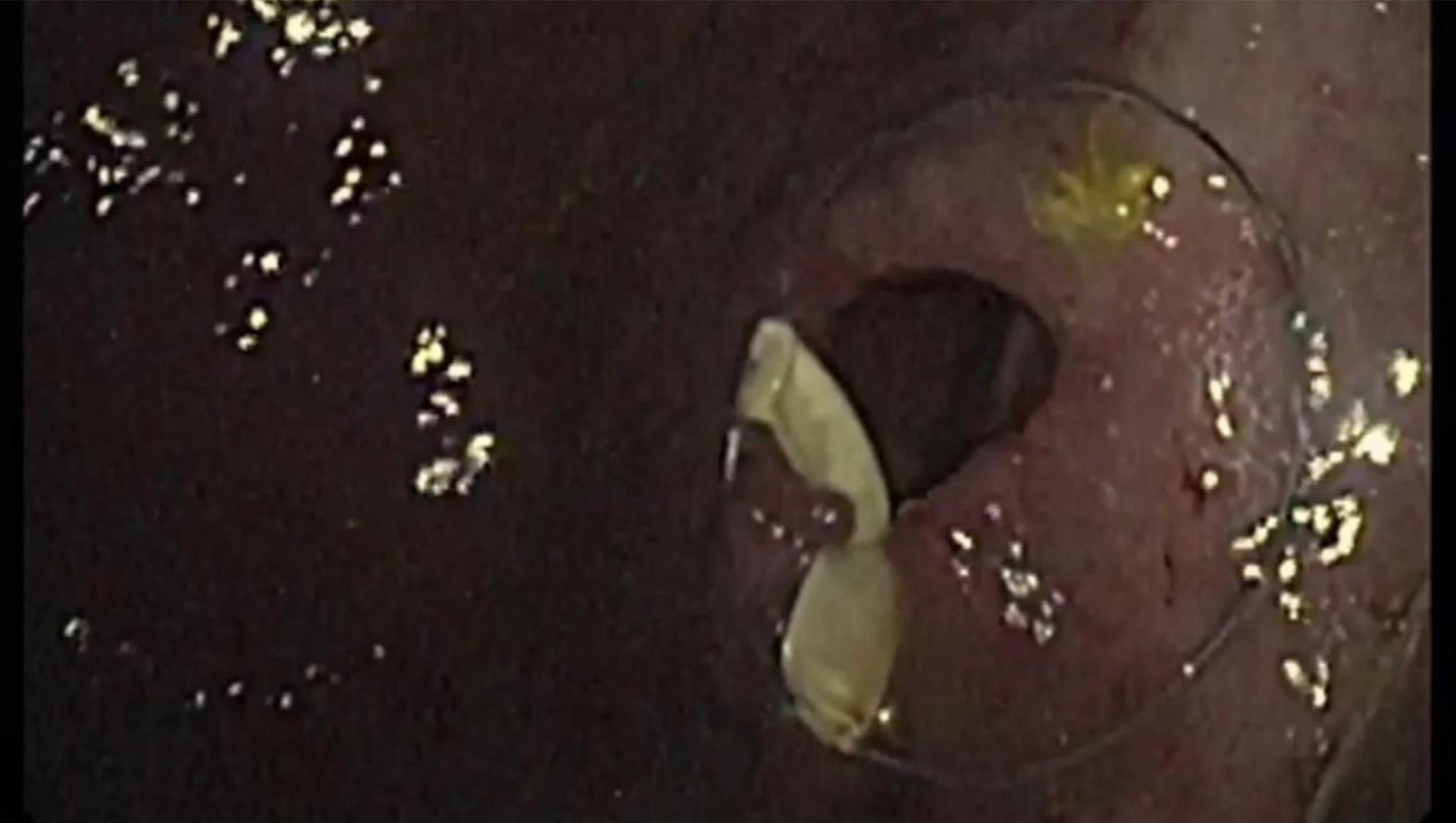


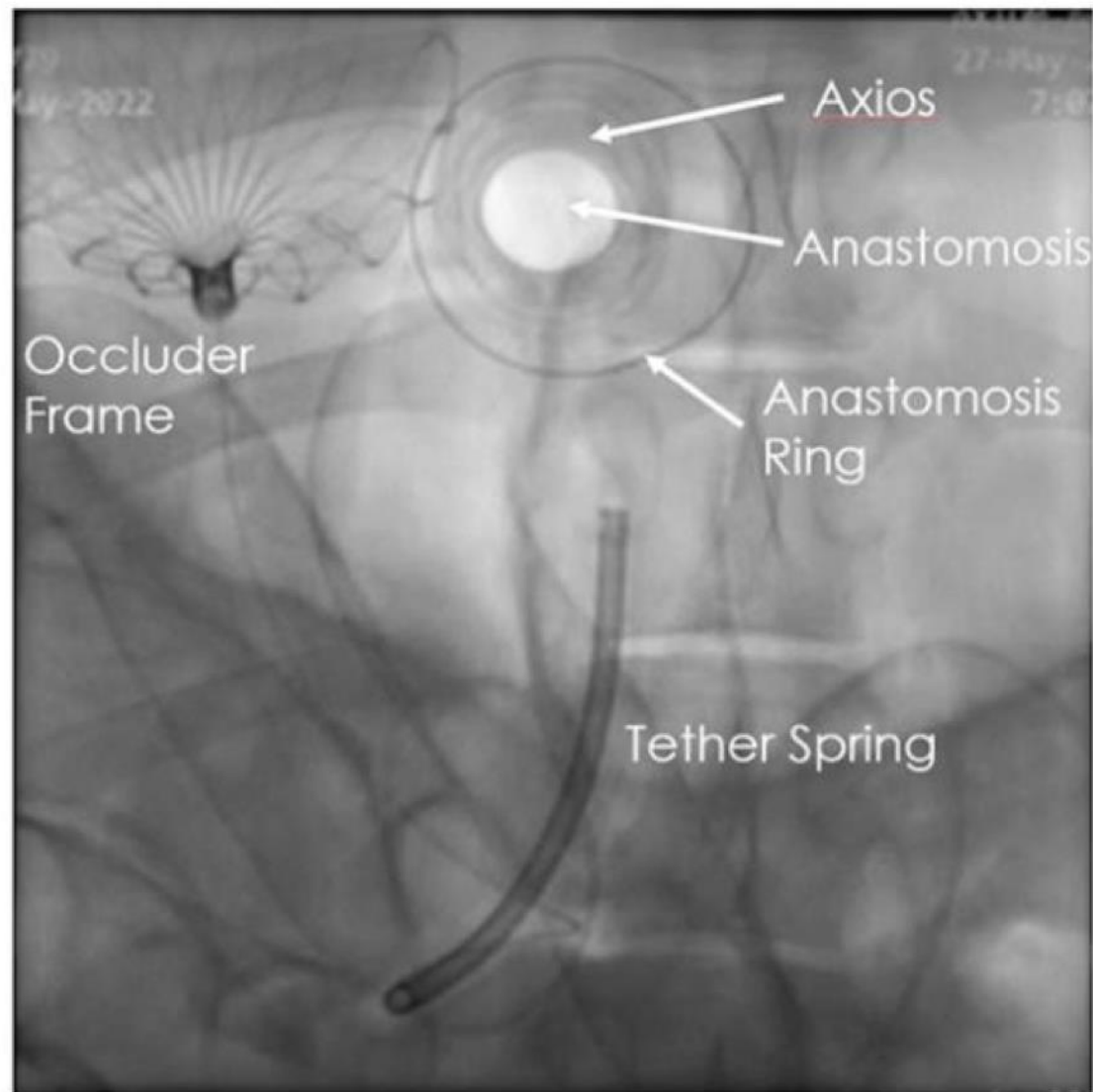
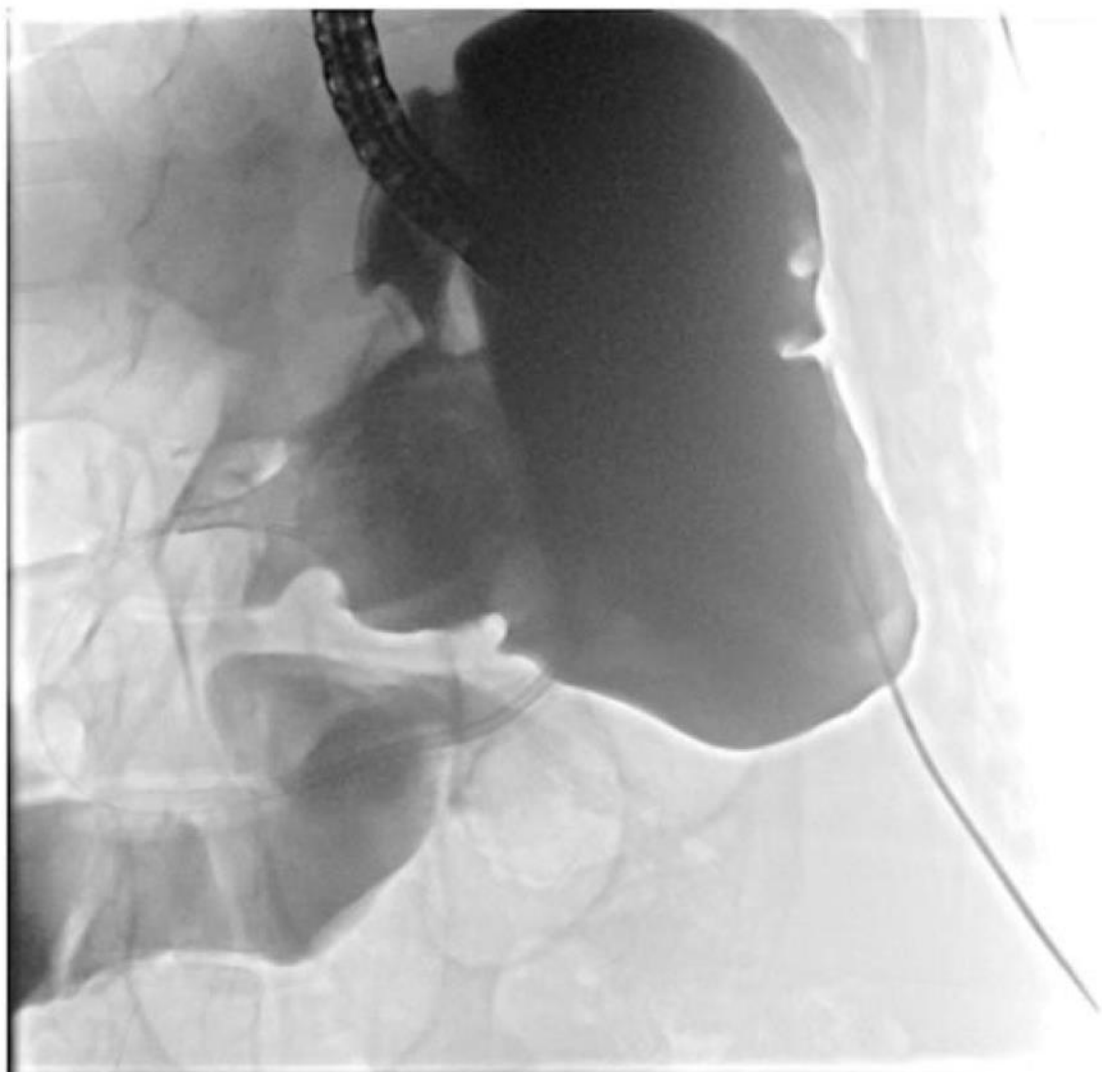
Neutral

Single

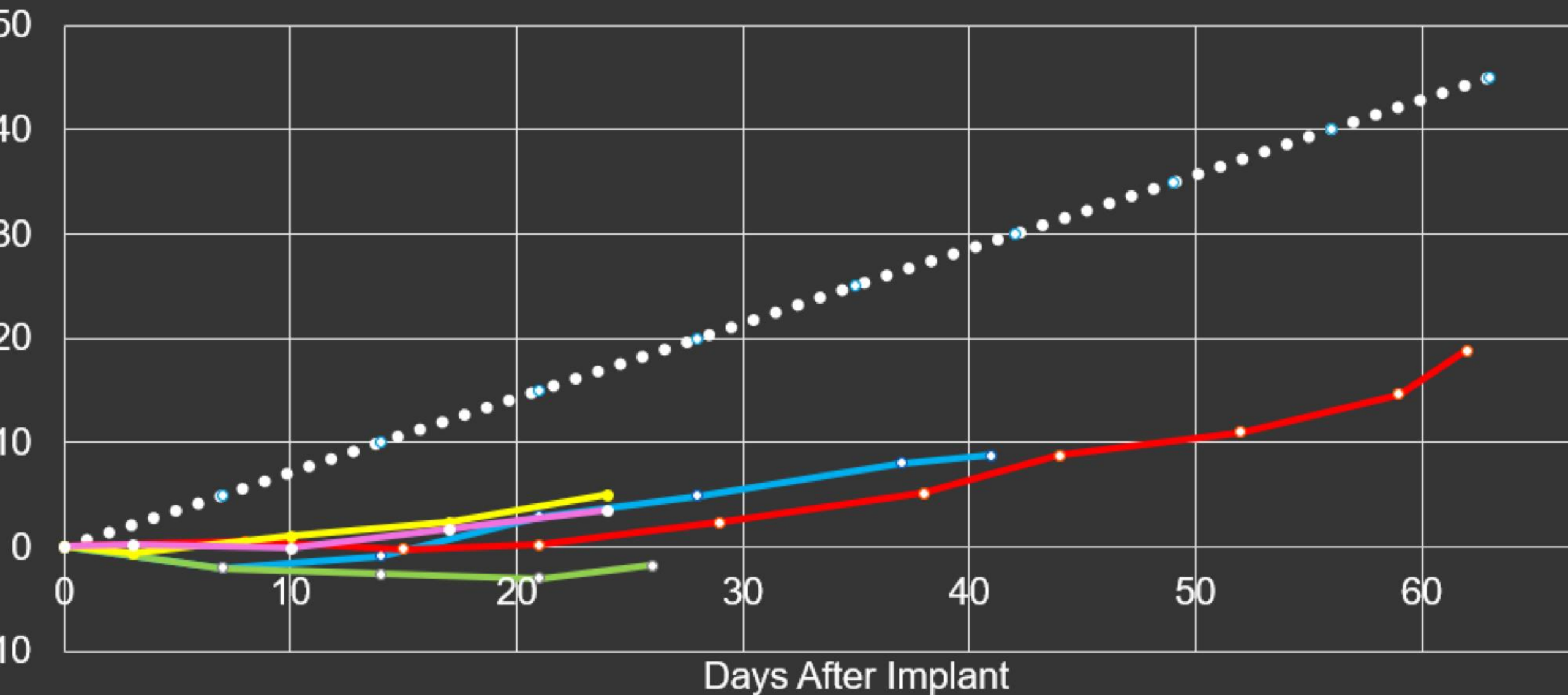








Weight Change from Start Point (Simulated Control)

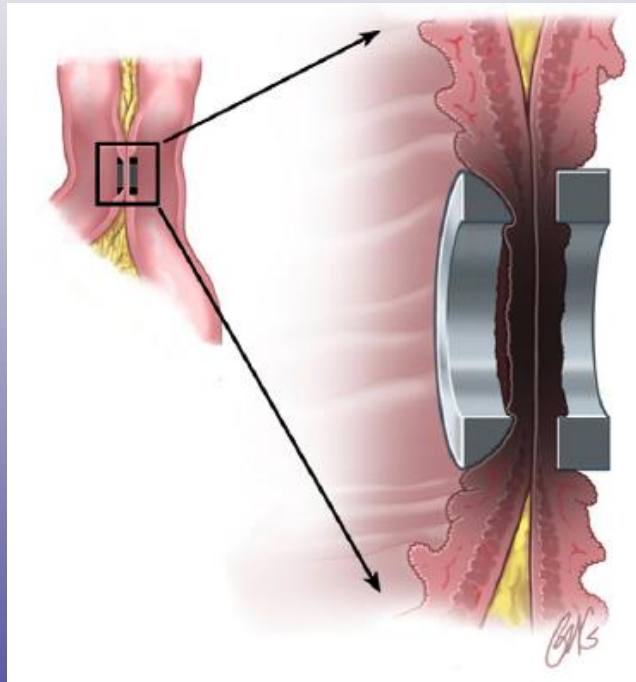


••• 5kg/wk control ••• Device 1 ••• Device 2 ••• Device 3 ••• Pilot 548 ••• Pilot 550

SAFER LESS INVASIVE ANASTOMOSIS

BY ENDOSCOPY...OR HYBRID

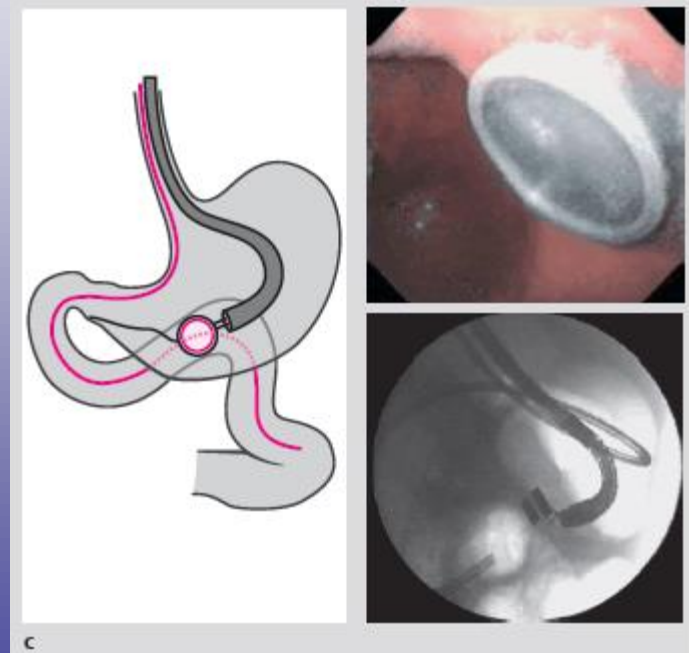
Compression Anastomosis



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

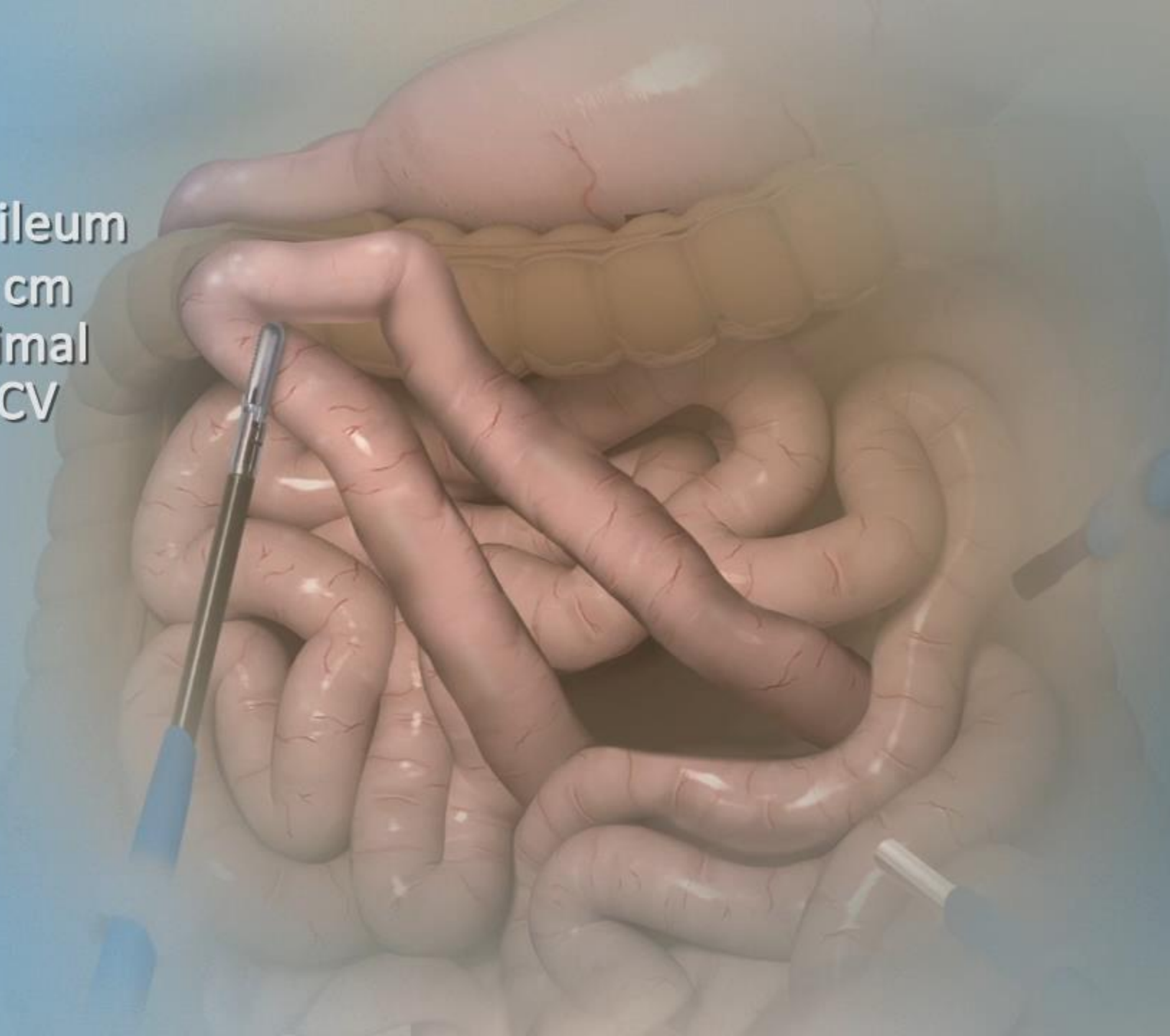


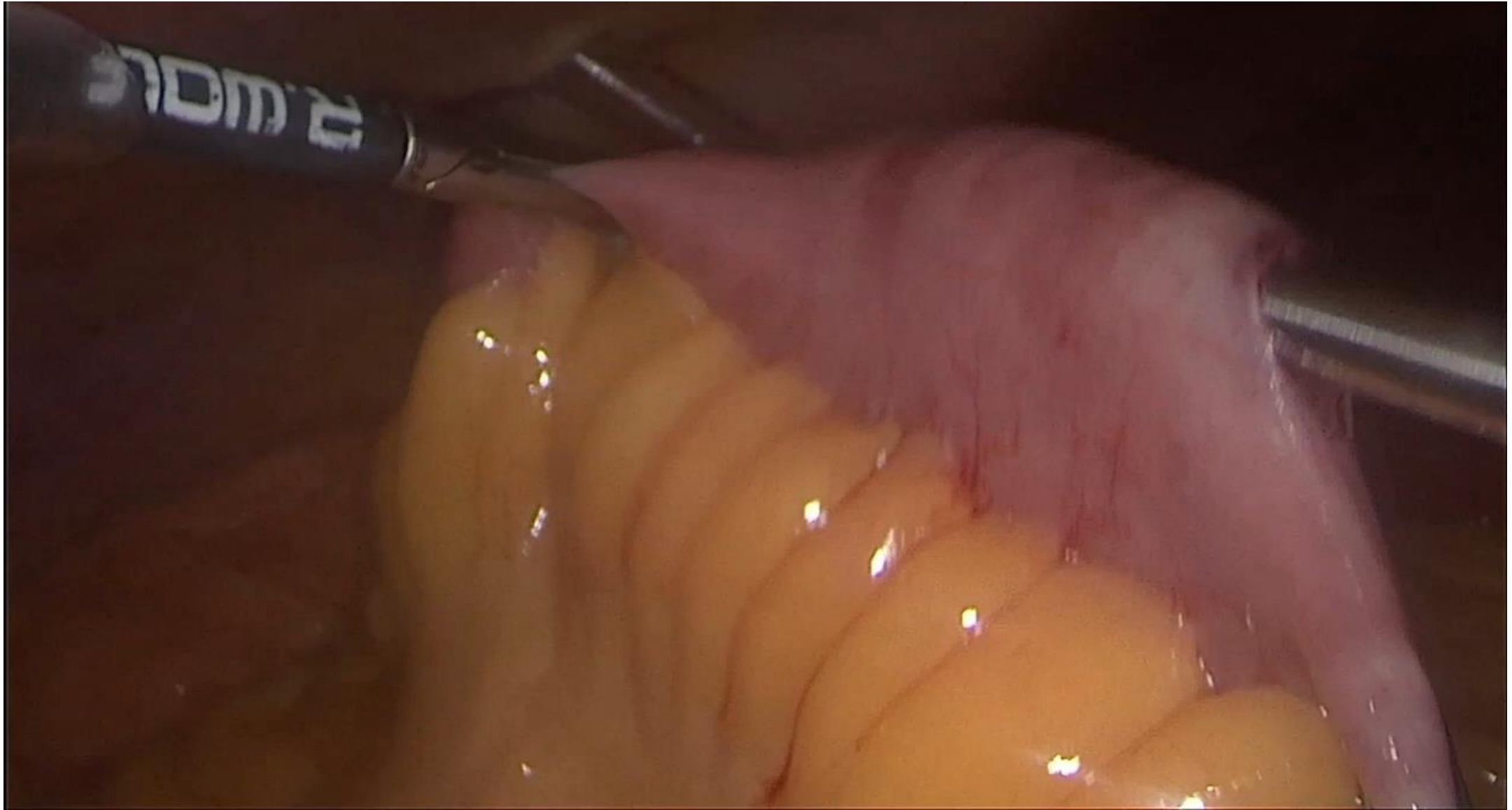
(D) Day 180



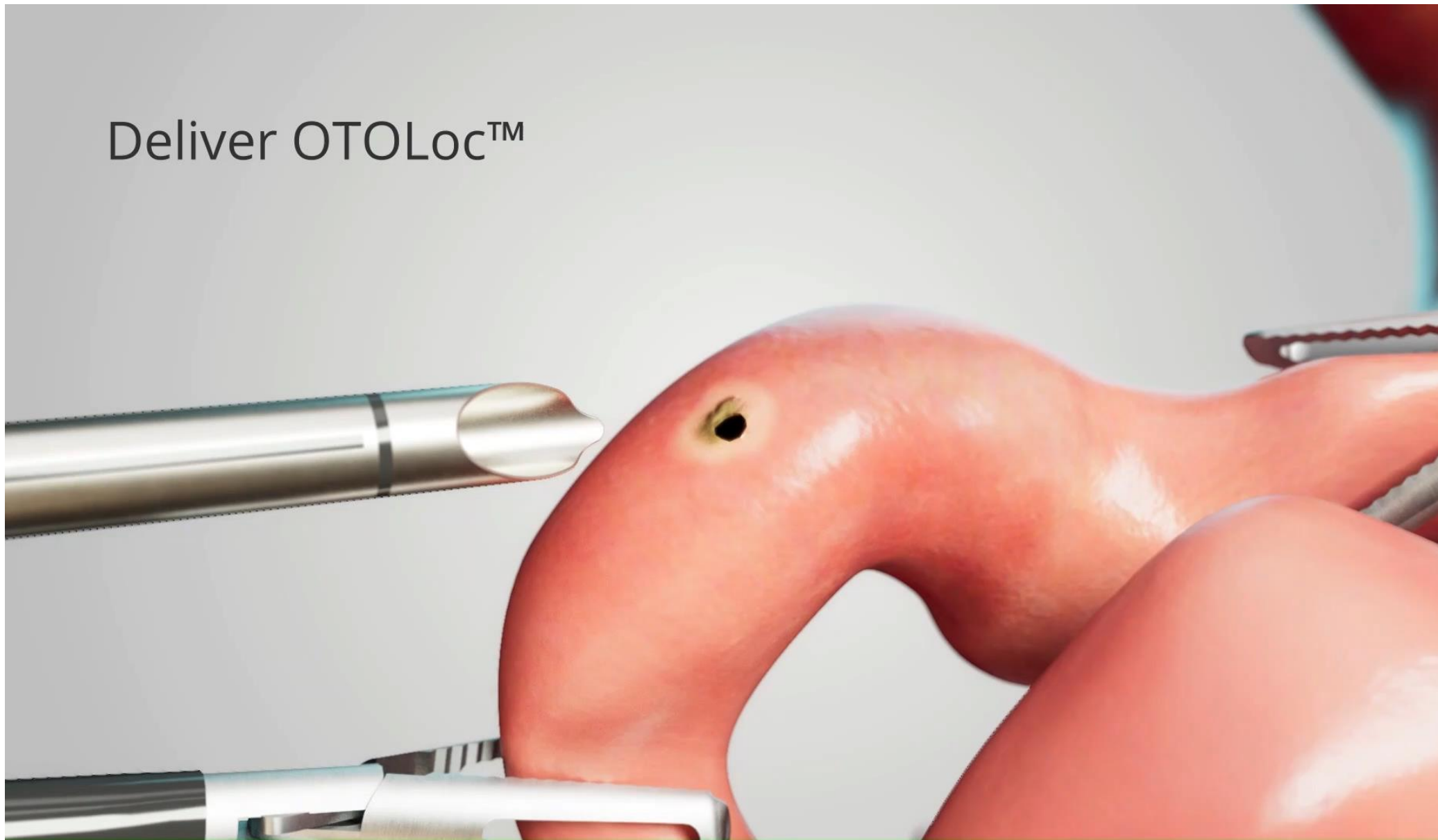
SP4569V01

Grasp ileum
300 cm
proximal
to ICV

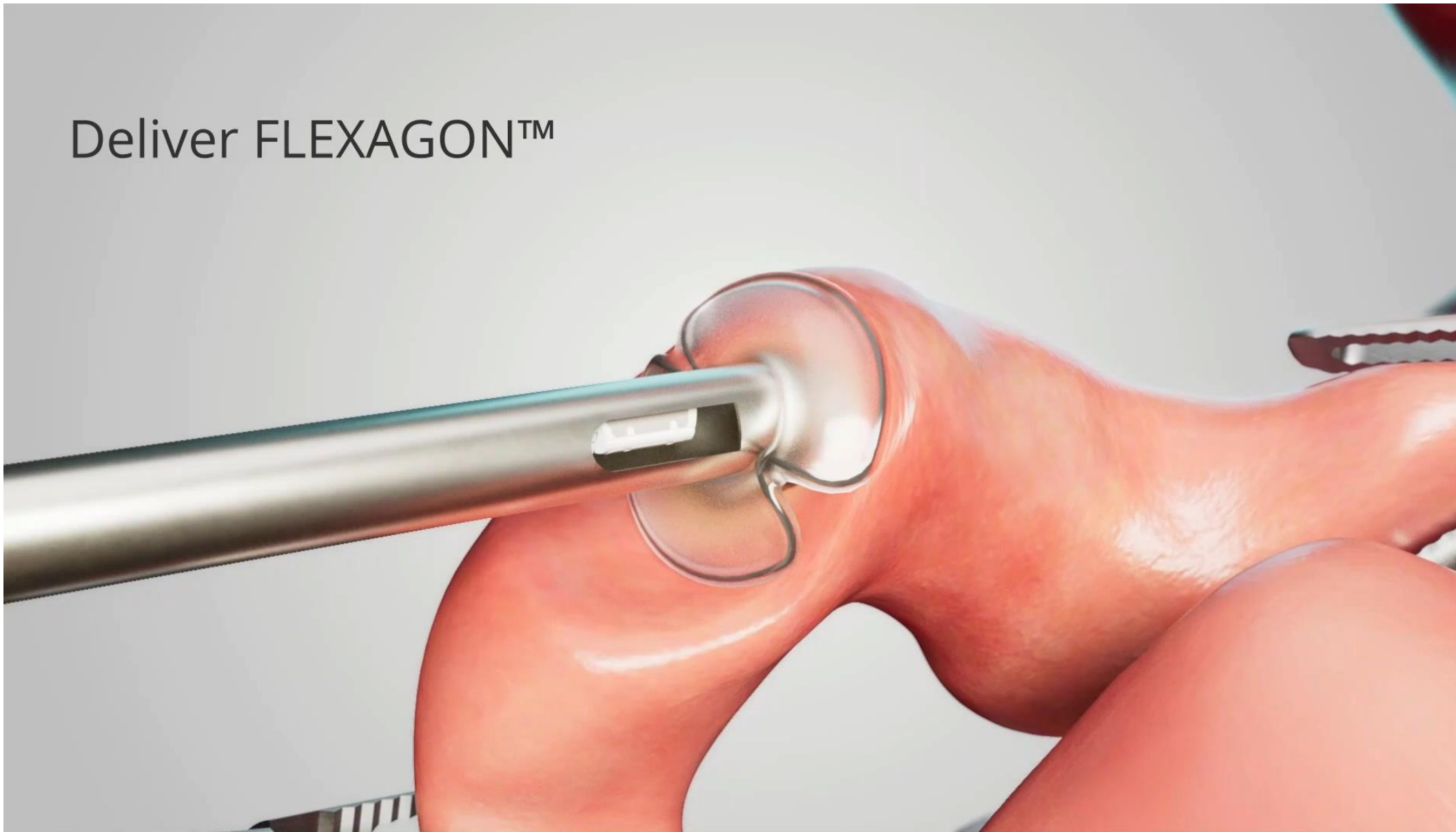


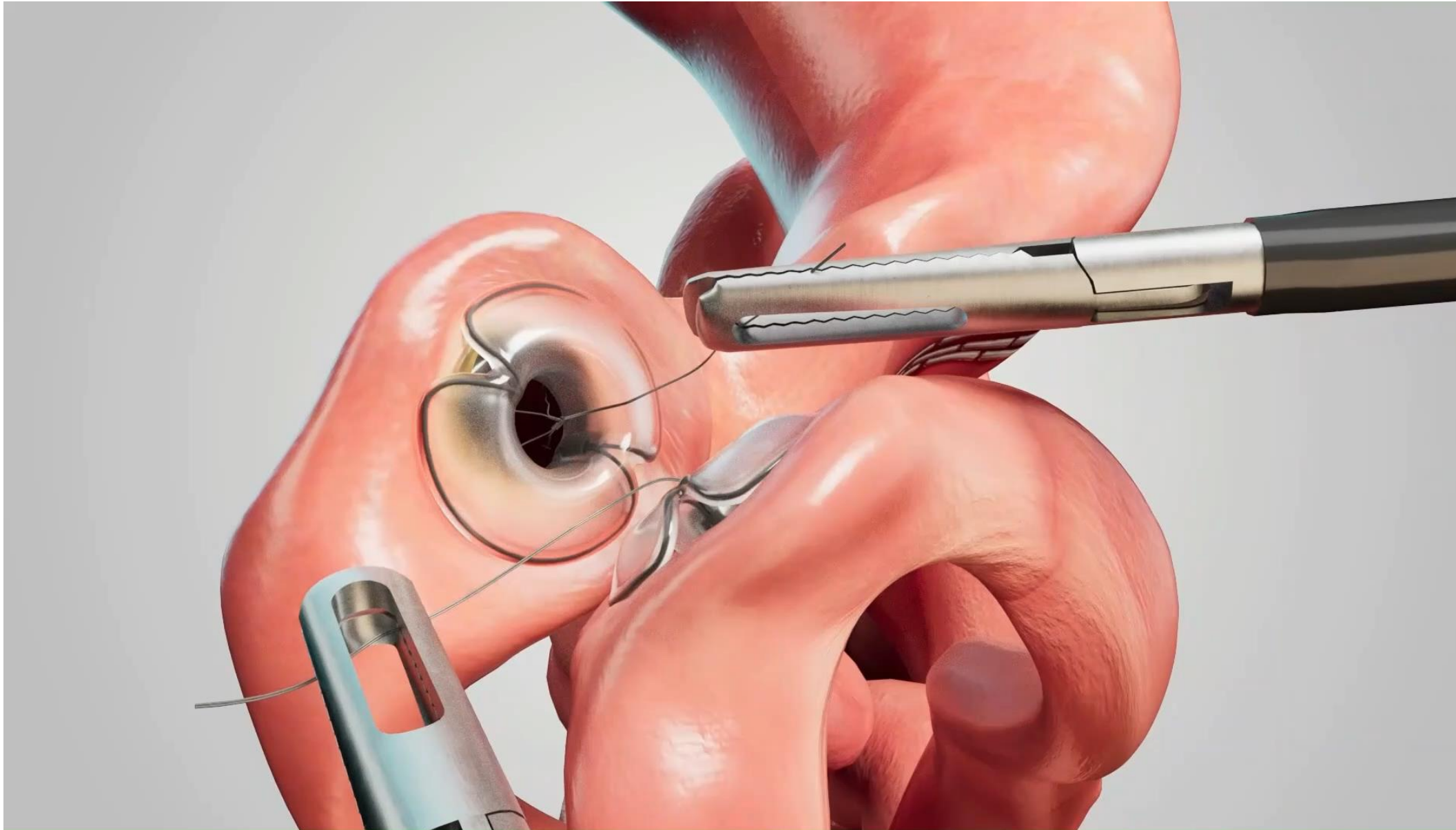


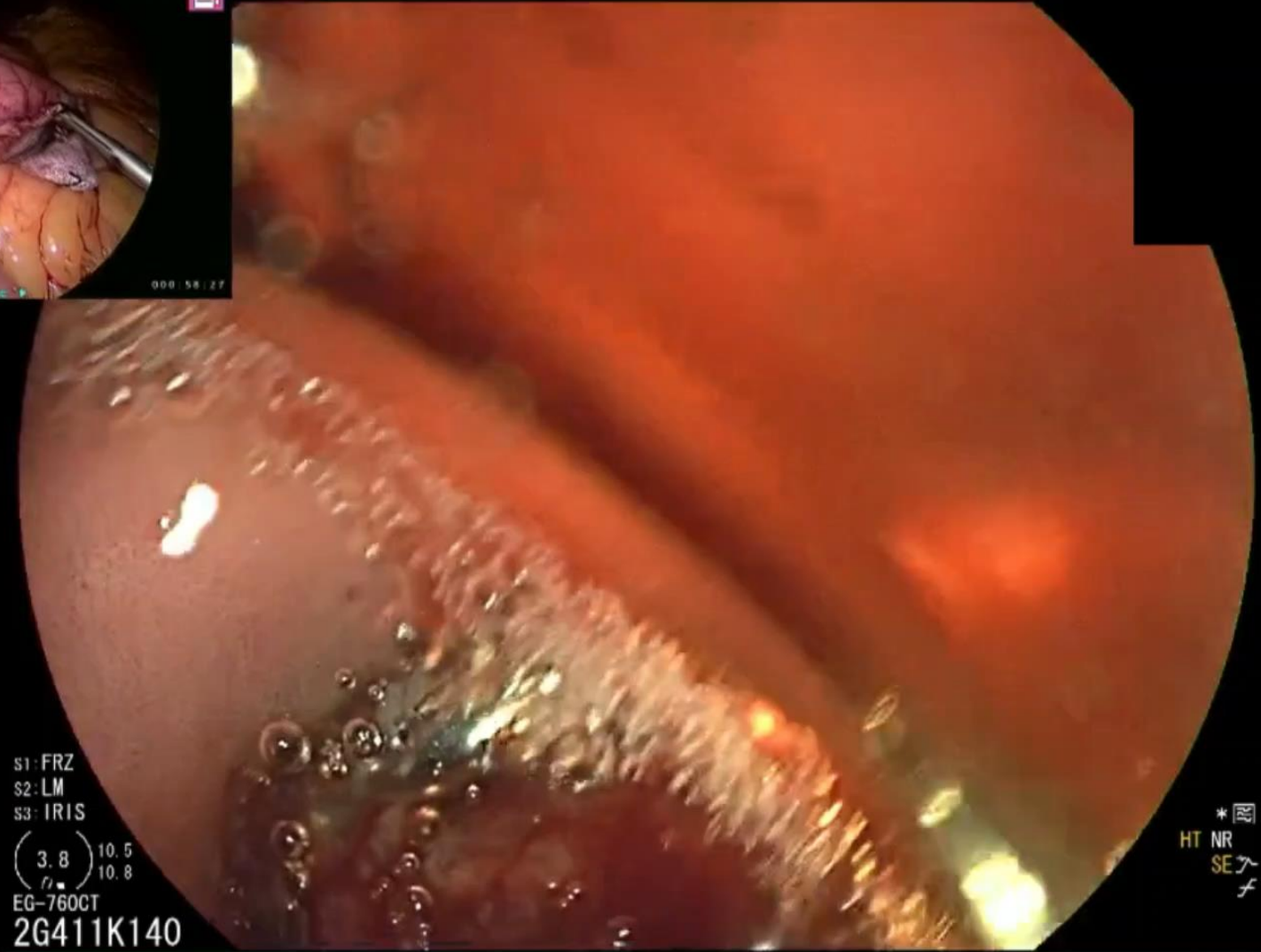
Deliver OTOLoc™



Deliver FLEXAGON™

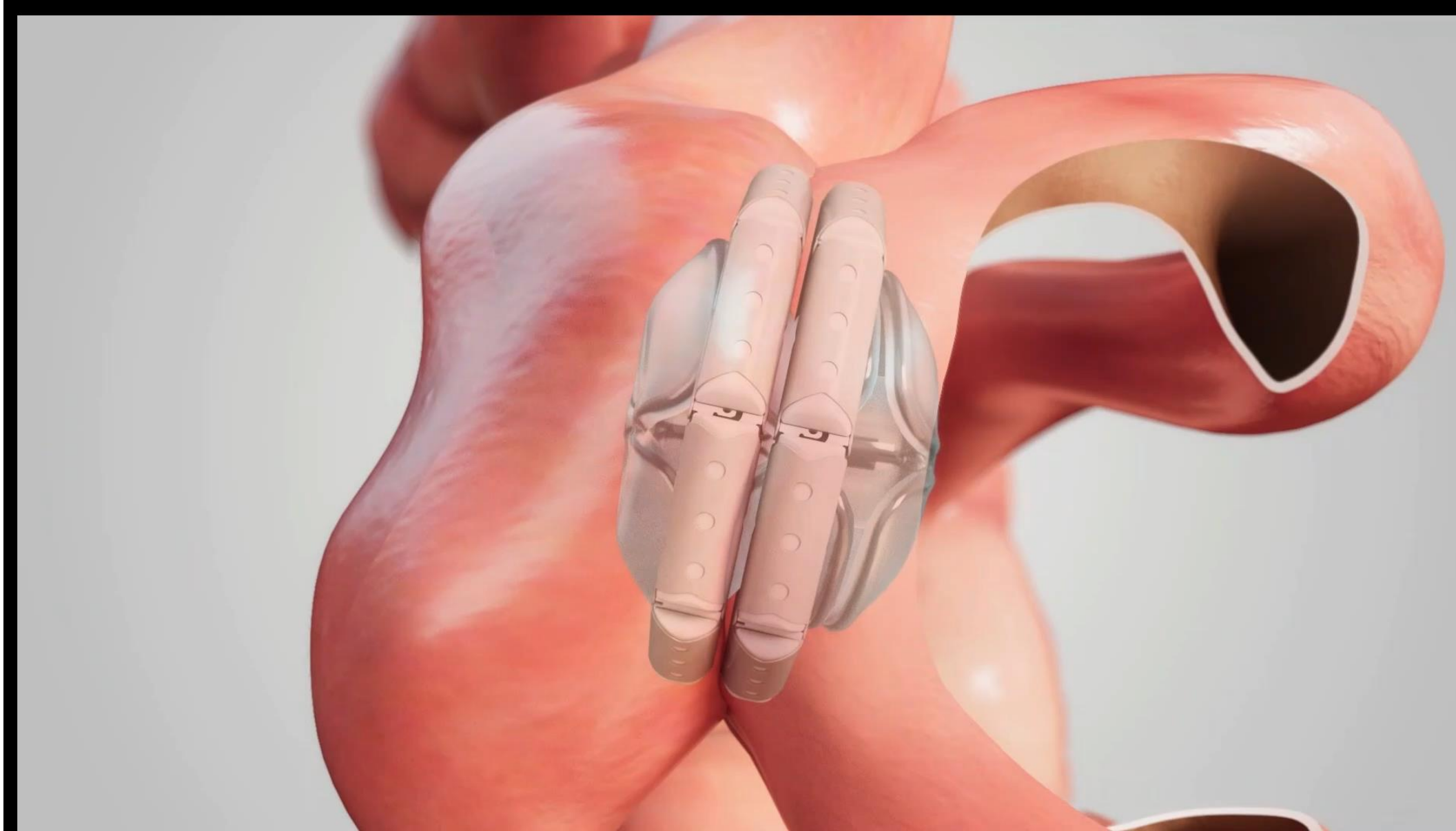


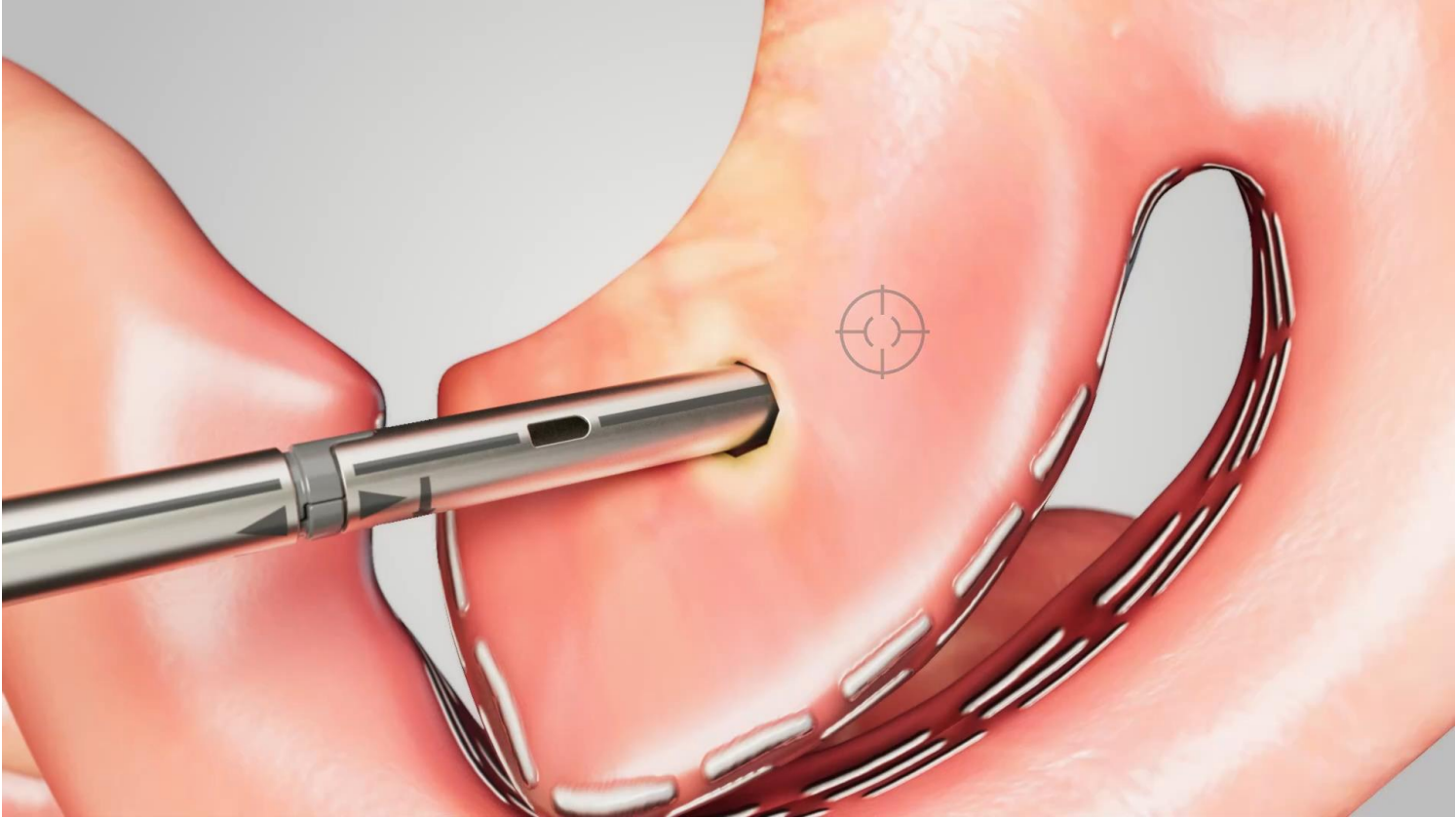




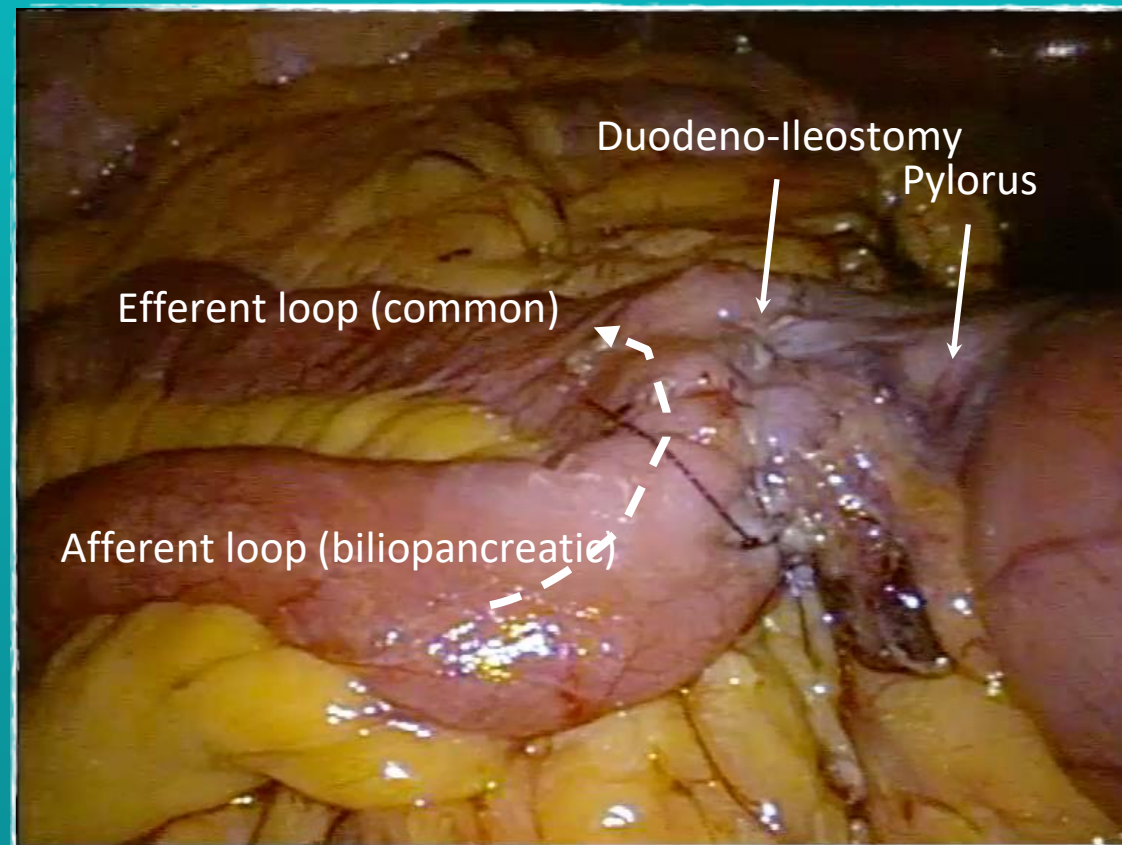
S1: FRZ
S2: LM
S3: IRIS
(3.8) 10.5
10.8
EG-760CT
2G411K140

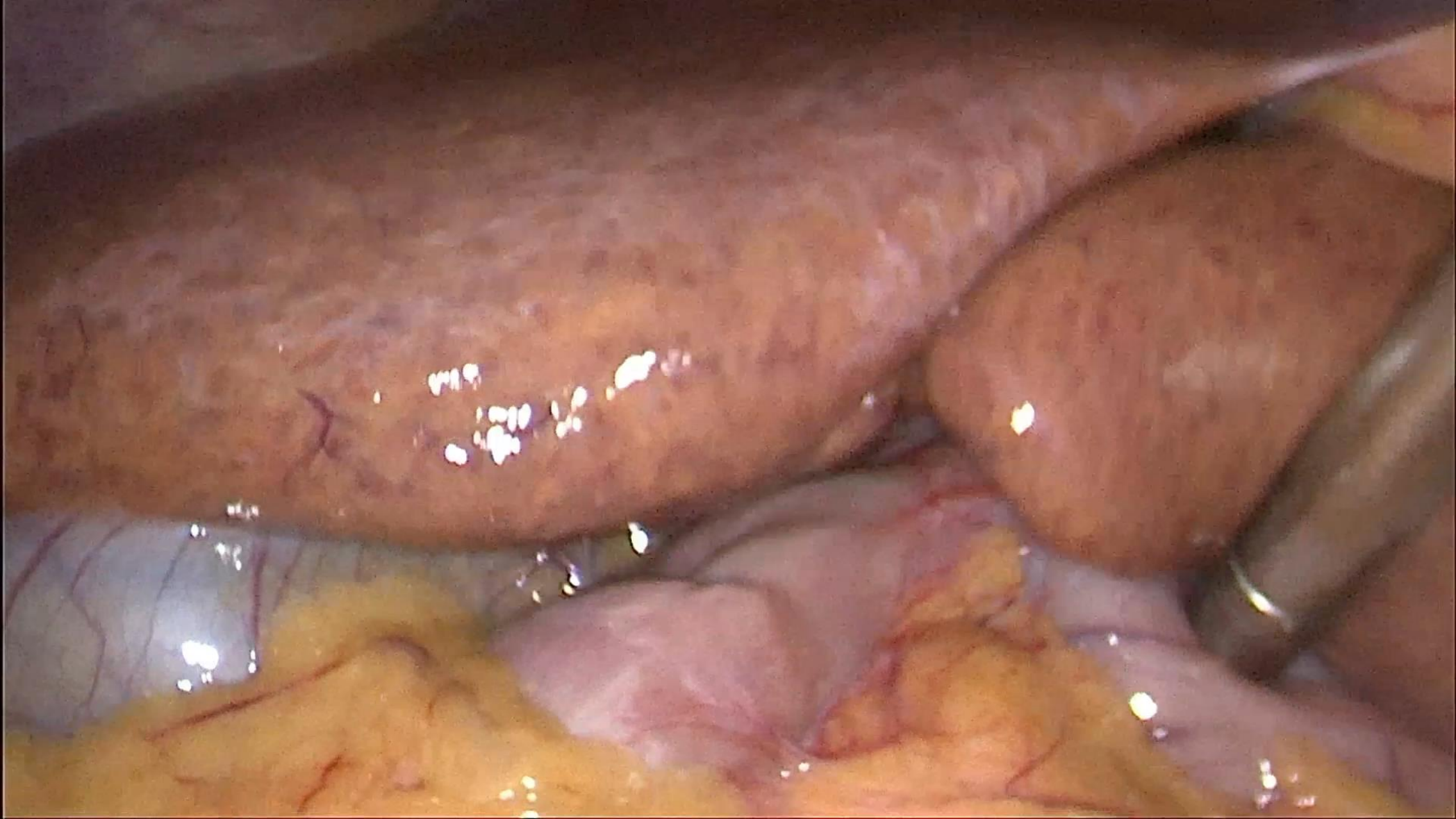
* 國
HT NR
SE 7
/





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









ENDO ROBOTICS



FUTURE

MULTIPLE NOT NECCESARILY STAGED INTERVENTIONS

MORE LIKE.....COMBINED THERAPIES



SP4569V01

FUTURE

LESS AGGRESSIVE APPROACH (From the surgical point of view)

MI or/and Endoscopic Procedures or HYBRID.

REVISIONS.....

ENDOROBOTICS

PLUS: REAL GOOD MEDICATIONS



WE DO THIS GAP MORE
SAFELY HYBRID

