

ENDOLUMINAL COLONIC STENTING

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COLONIC STENT...

... « **bridge to surgery** »

more frequent application

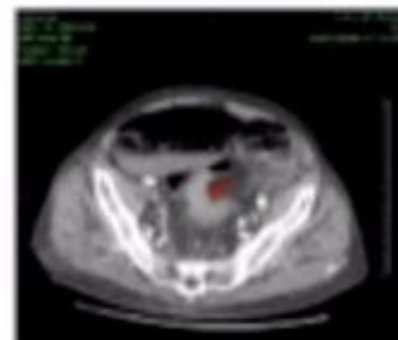
... **for palliation in case of tumoral obstruction**

less invasive for high risk elderly patients

... **in benign diseases**

to avoid difficult surgical procedures or surgery
in emergency

Versus the Gold Standard ... **SURGERY !!**



DIFFICULT AND CONTROVERSIAL SITUATIONS

Right colon

Extrinsic compression

Low rectum

Long-term applications

RIGHT COLON...

Possible !

SAME TECHNICAL AND CLINICAL SUCCESSES than FOR DISTAL COLON (> 90%)

Repici et al. GIE 2007 (21 patients)

Yao et al. World J Gastro 2011 (81 patients)

EVEN EASIER THAN FOR DISTAL COLON ?!...

Morbidity 27.2% vs 12.5% (p=0.06)

Small AJ et al. GIE 2010 (233 patients)

LOW RECTUM...

Poor tolerance if distal tumor margin – anus < 5 cm

Only one retrospective comparative study (30 patients)

Rectal syndrom and pain

62.5% (stent < 5 cm) vs 7.1% (stent > 5 cm) (p = 0.011)

Analgesics needed

To be avoided ...

Song Hy et al. GIE 2008

LONG TERM PALLIATION...

SAME RATE of TECHNICAL & CLINICAL SUCCESSES (90%)

MEAN PATENCY: 6 MONTHS

Small AJ et al. GIE 2010

168 patients with stent for palliation

Mean patency: 145 days

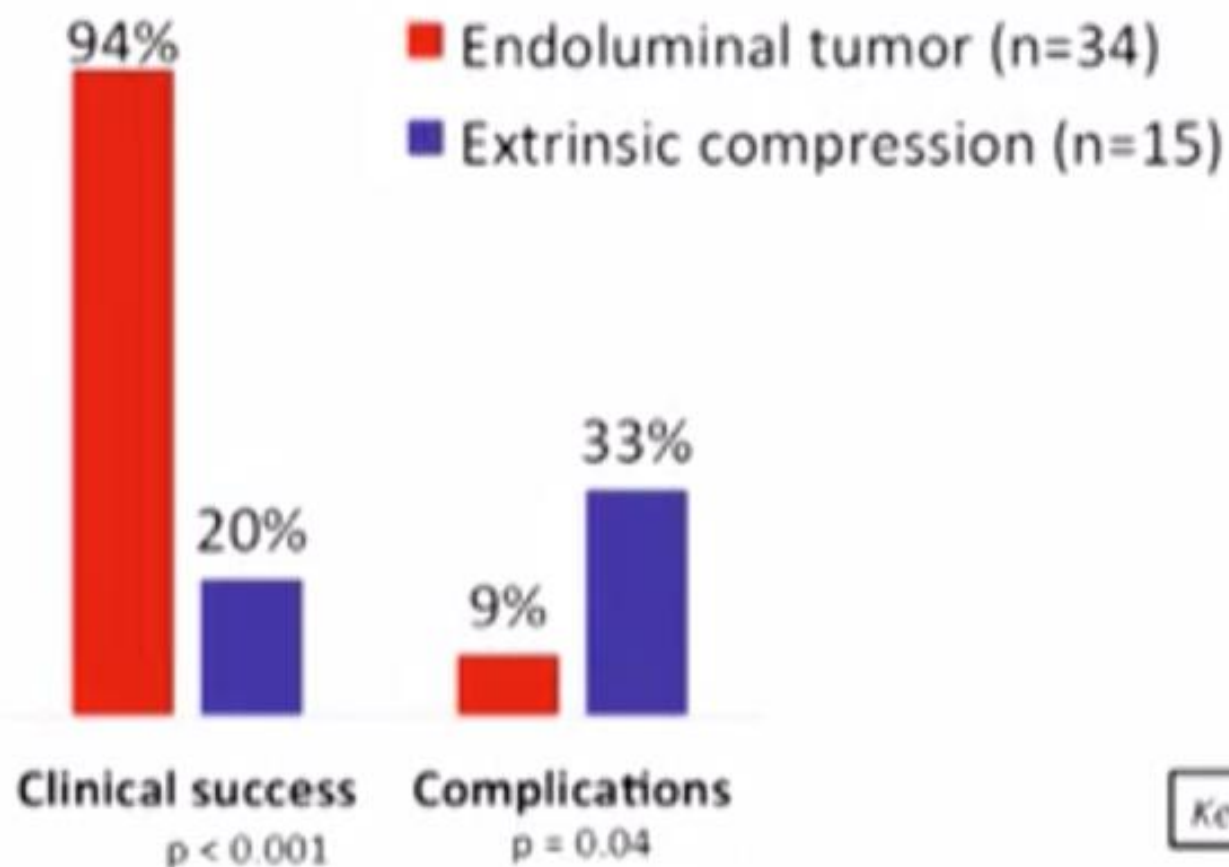
Migration: 5%

108/122 (88.5%) had a patent stent until death

EXTRINSIC COMPRESSION...

CONTROVERSED RESULTS

Case-control study

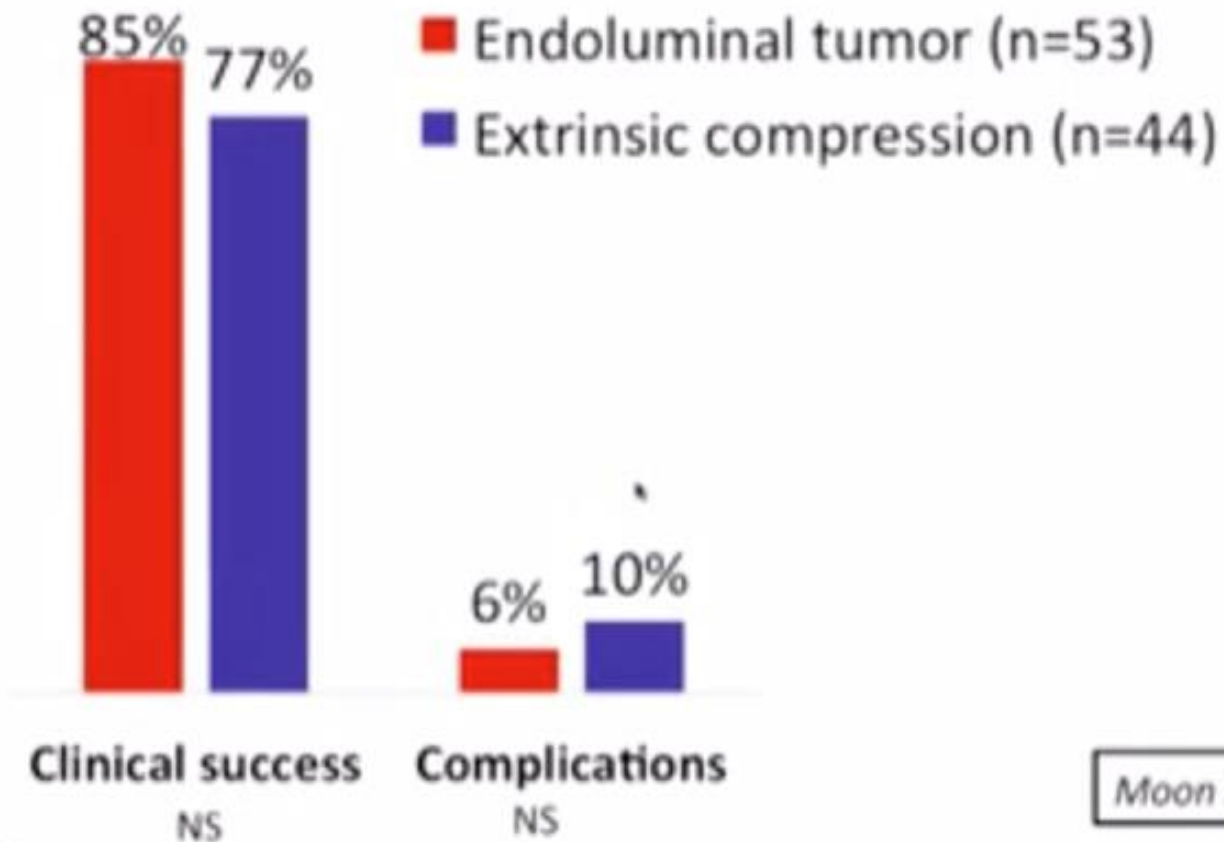


Keswani RN et al. GIE 2009

EXTRINSIC COMPRESSION...

CONTROVERSED RESULTS

Case-control study

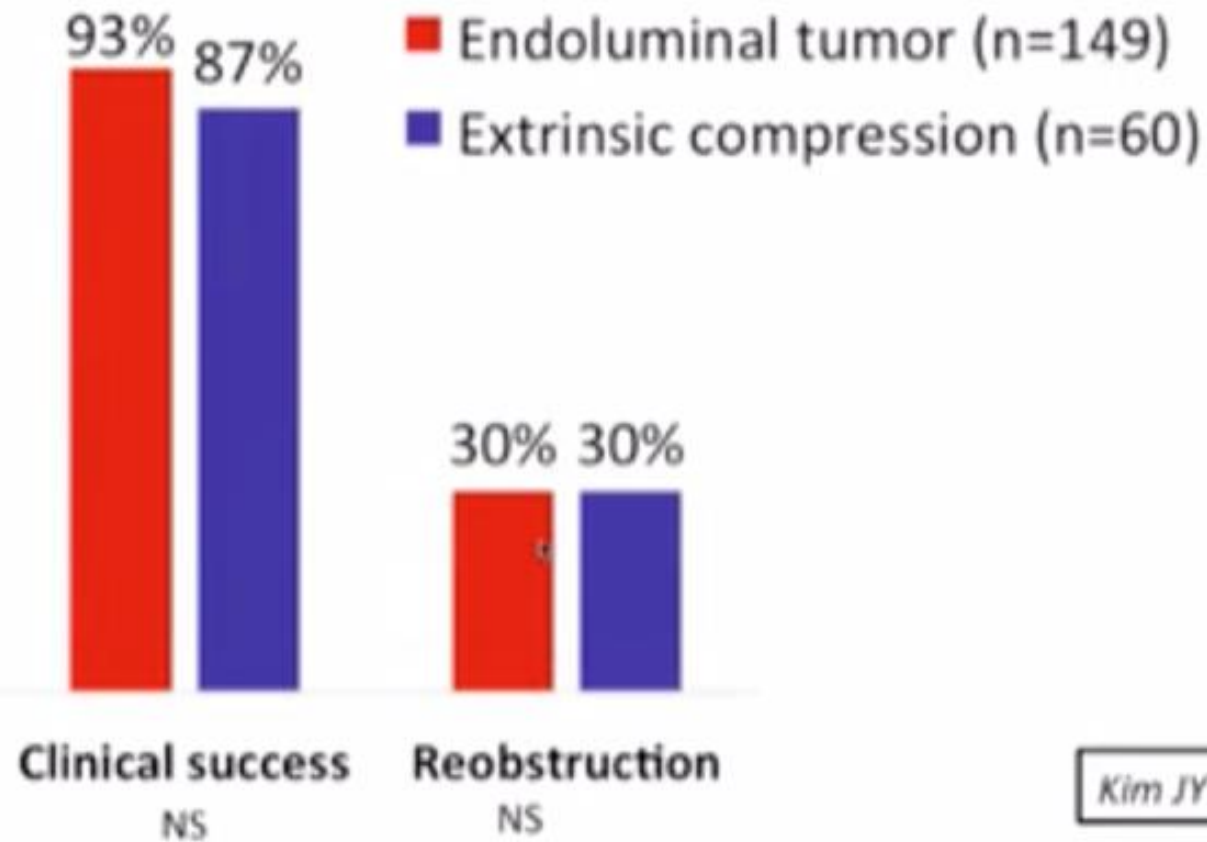


Moon SJ et al. Dig Dis Sci 2013

EXTRINSIC COMPRESSION...

CONTROVERSED RESULTS

Case-control study



Kim JY et al. Surg Endosc 2013

DIFFICULT AND CONTROVERSIAL SITUATIONS

Right colon surgery feasible

Extrinsic compression possible

Low rectum no

Long-term applications still a need ?

No. of stenting procedures and stricture location		Stricture length ≥ 12 cm	> 1 Stent required	Technical failure	Decompression failure
Rectum	5	3	1	0	1
Rectosigmoid	20	10	3	1	1
Sigmoid colon	30	14	3	2	0
Descending colon	8	4	2	1	0
Transverse colon/splenic flexure	5	5	0	0	0
Ascending colon/hepatic flexure	1	0	0	0	0
Multiple strictures–proximal sigmoid/rectosigmoid	2	0	0	2	0

W Baraza, F Lee, S Brown and M Bassuni, Combined endo-radiological colorectal stenting: A prospective 5 years clinical evaluation. Colorectal Disease, 10, 901–906

Complication	Location of stent	Occurrences, <i>n</i> (%)
Overgrowth	Rectum (1)	6 (8%)
	Rectosigmoid (1)	
	Sigmoid (3)	
	Descending colon (1)	
Migration	Rectosigmoid (3)	4 (6%)
	Descending colon (1)	
Fistulation		
Rectovaginal	Rectum, (1) (colorectal cancer)	3 (4%)
Colovesical	Rectosigmoid (1) (endometrial cancer)	
Enterocolic	Proximal sigmoid (1) (endometrial cancer)	
Fracture	Rectum (1)	2 (3%)
	Rectosigmoid (1)	
Tenesmus	Rectosigmoid (2)*	2 (3%)

W Baraza, F Lee, S Brown and M Bassuni, Combined endo-radiological colorectal stenting: A prospective 5 years clinical evaluation. Colorectal Disease, 10, 901–906

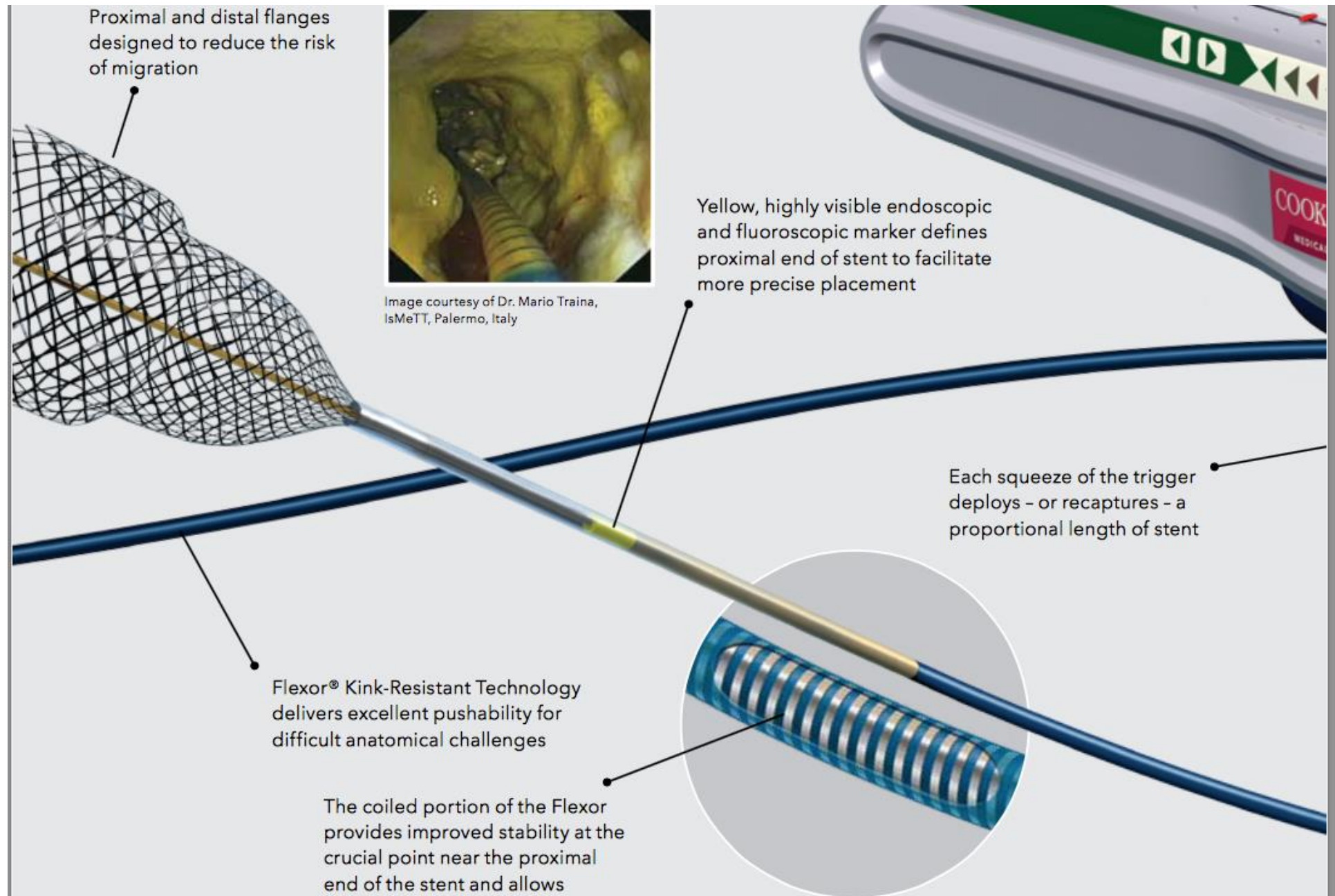
Malignancy (<i>n</i>)	Complications	Technical failure	Clinical failure
Prostate (3)	None	0	2
Endometrial (2)	Proximal migration (1)	0	0
Ovarian (1)	None	1	n/a
Metastatic gastric (1)	Tenesmus and urgency	0	0

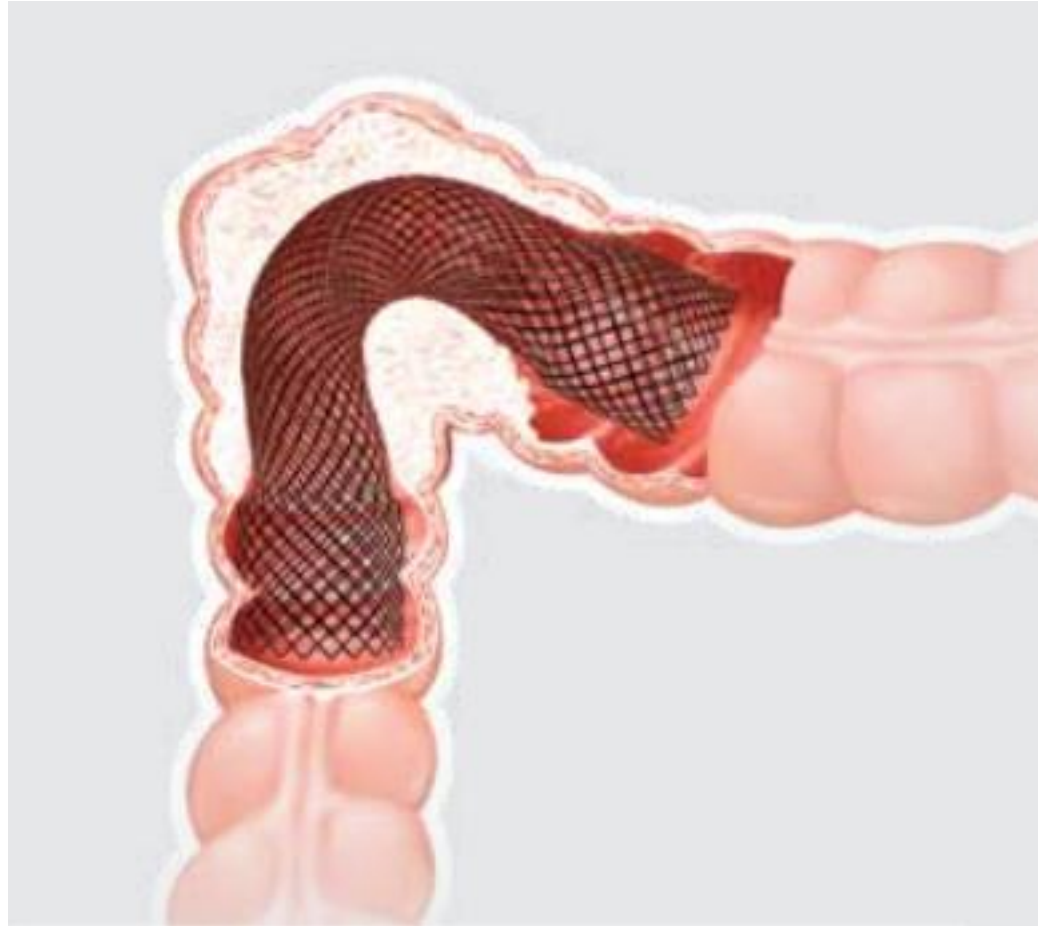
W Baraza, F Lee, S Brown and M Bassuni, Combined endo-radiological colorectal stenting: A prospective 5 years clinical evaluation. Colorectal Disease, 10, 901–906

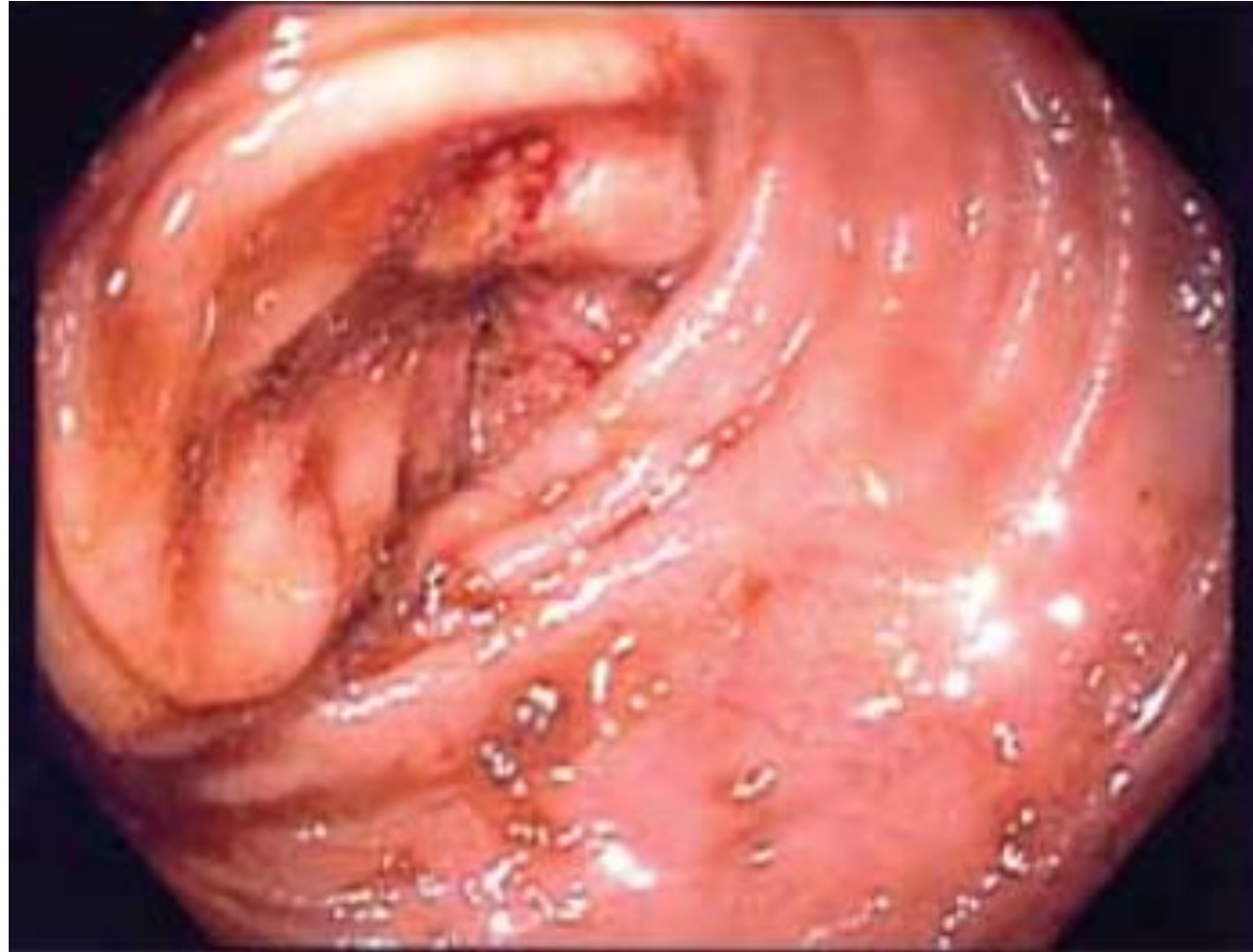
Technique

- Conscious sedation (Midazolam and Buscopan)
- Left Lateral position under image intensifier (C Arm)
- Colonoscopy (Olympus GIF H260 scope with 4.2 mm working channel)
- Experienced Radiologist always present (Paul Spencer)



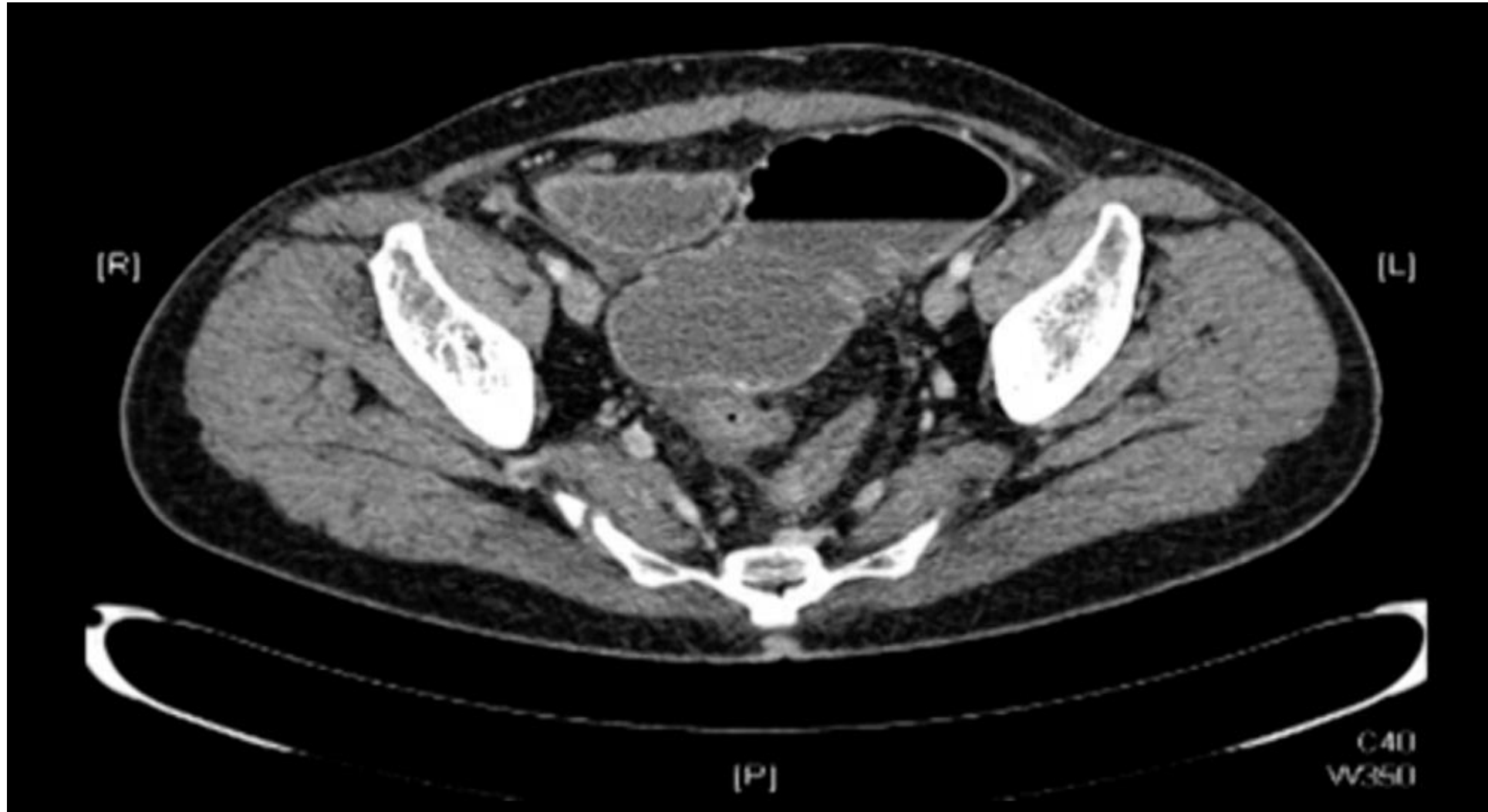




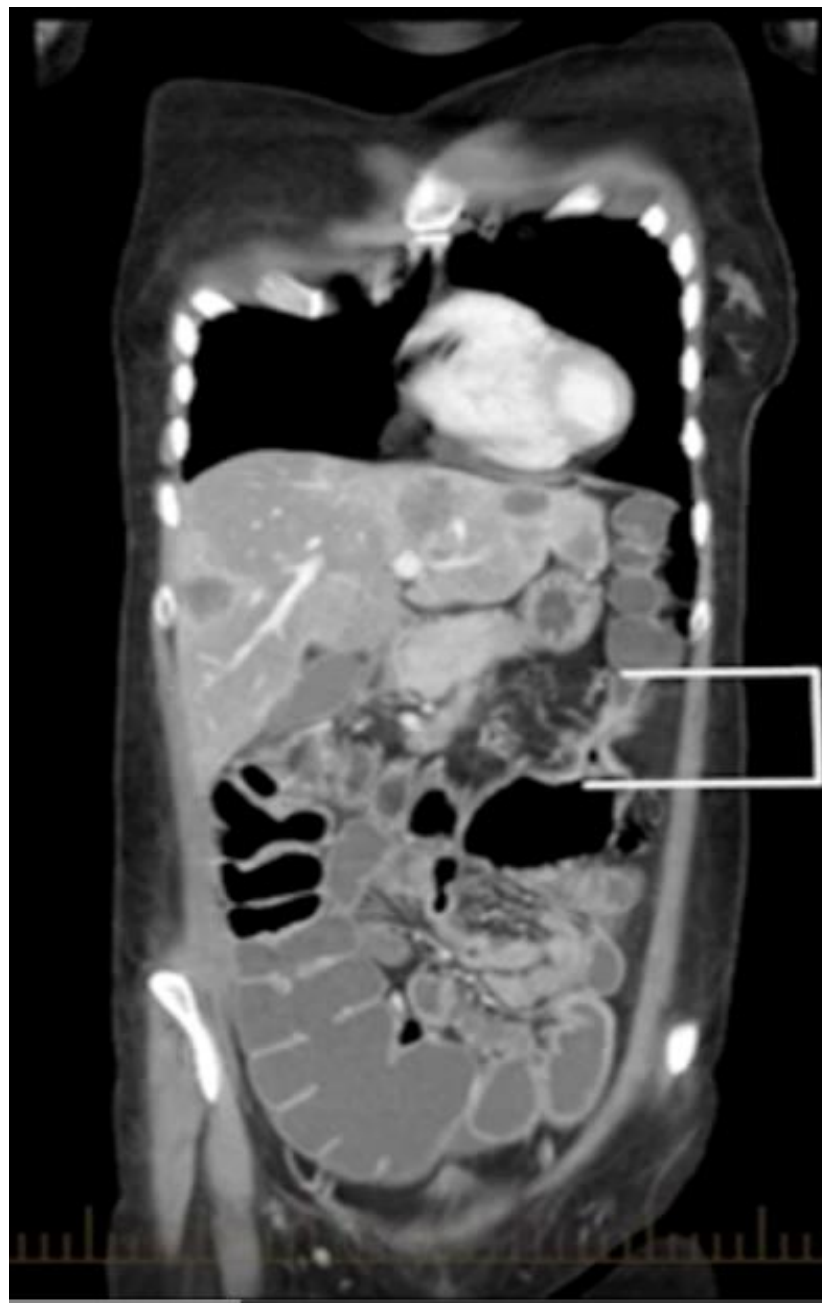




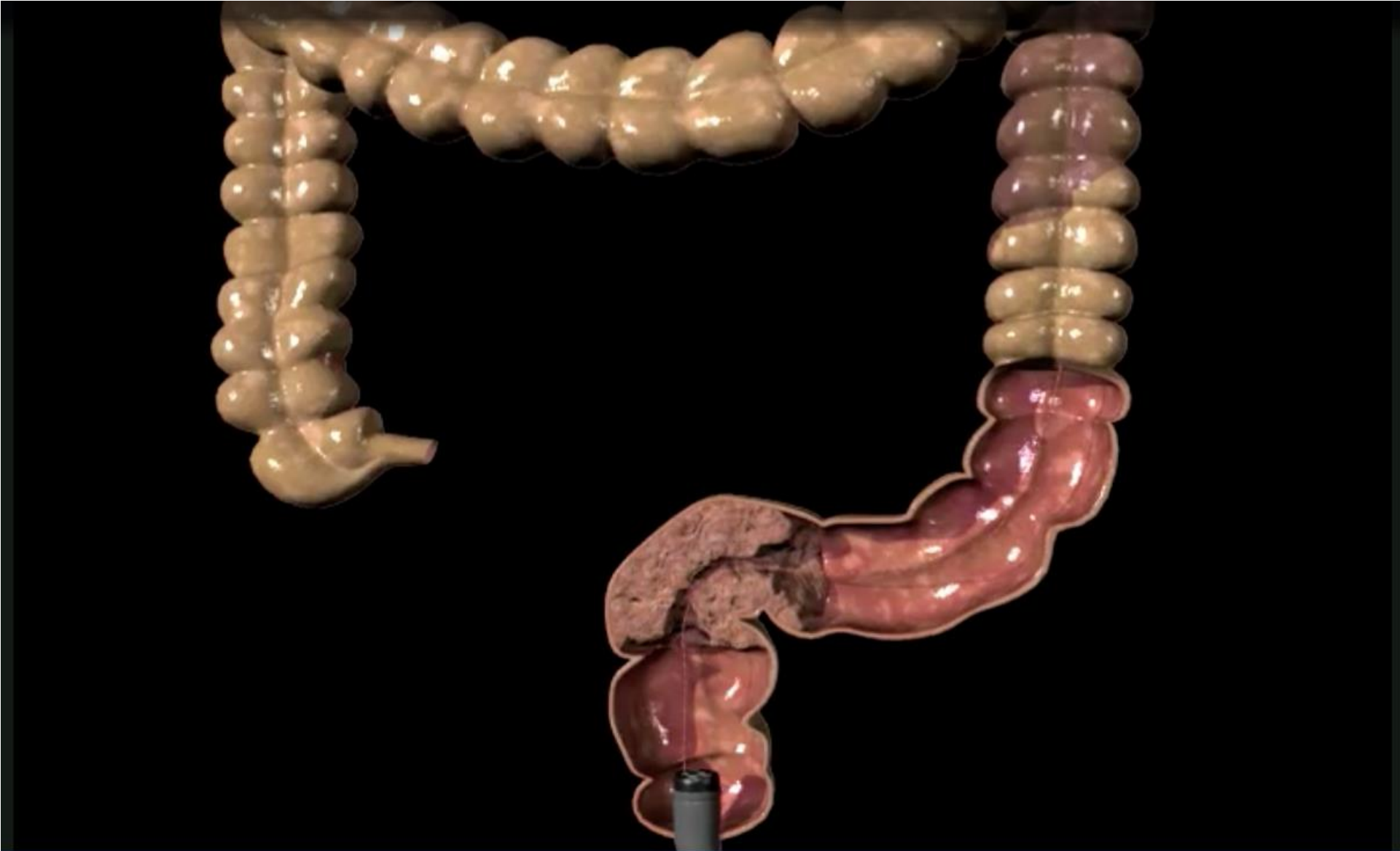




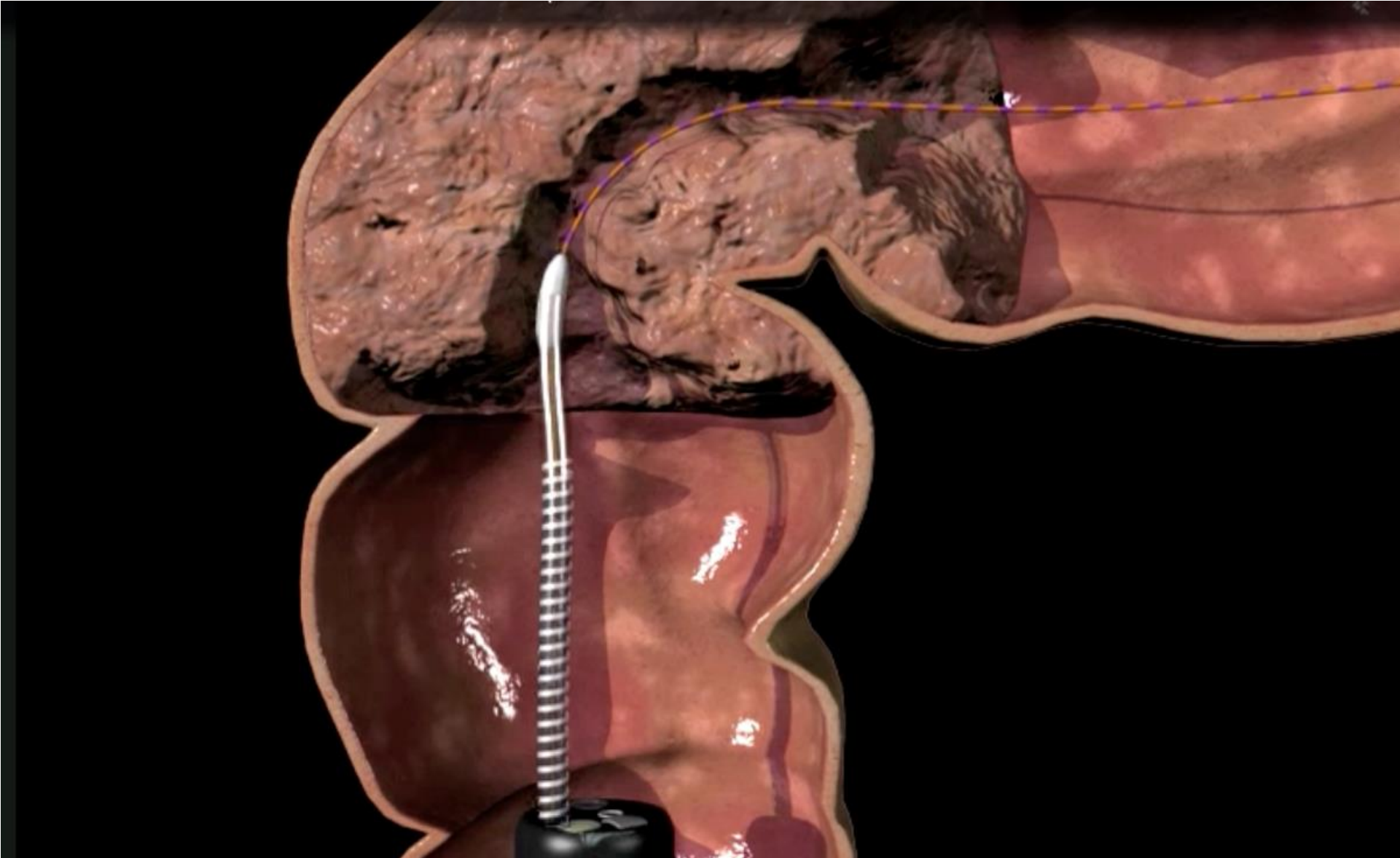


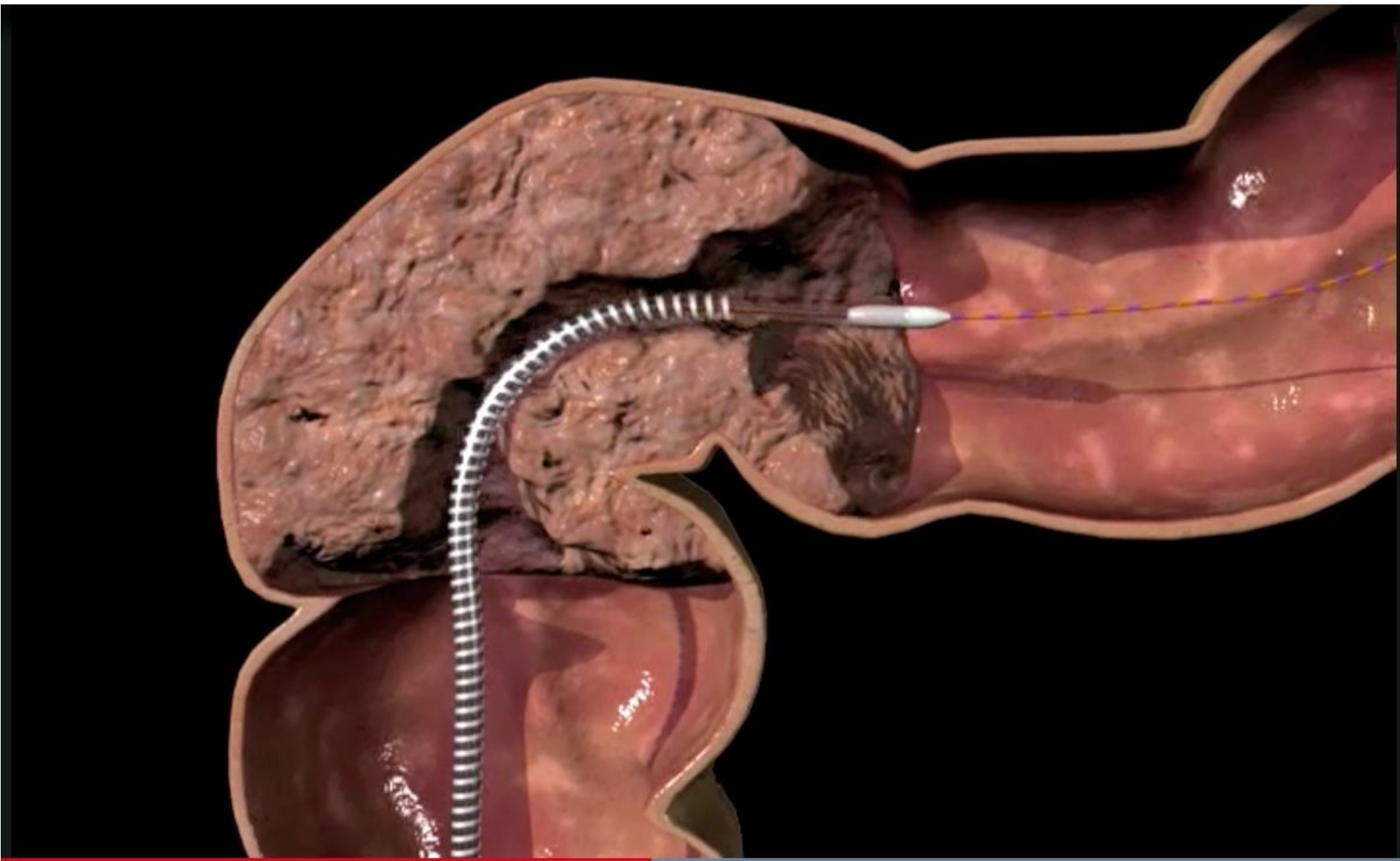


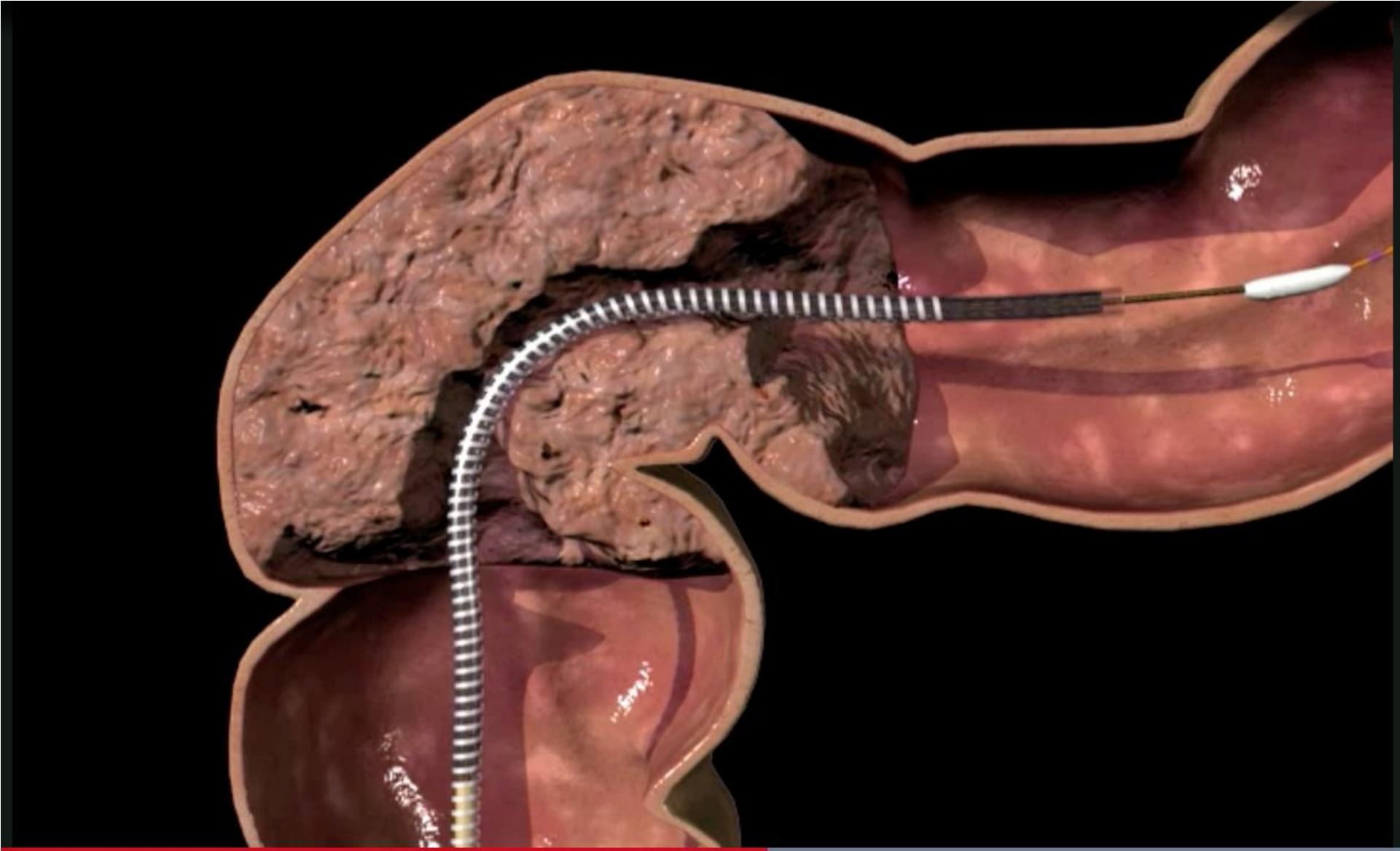
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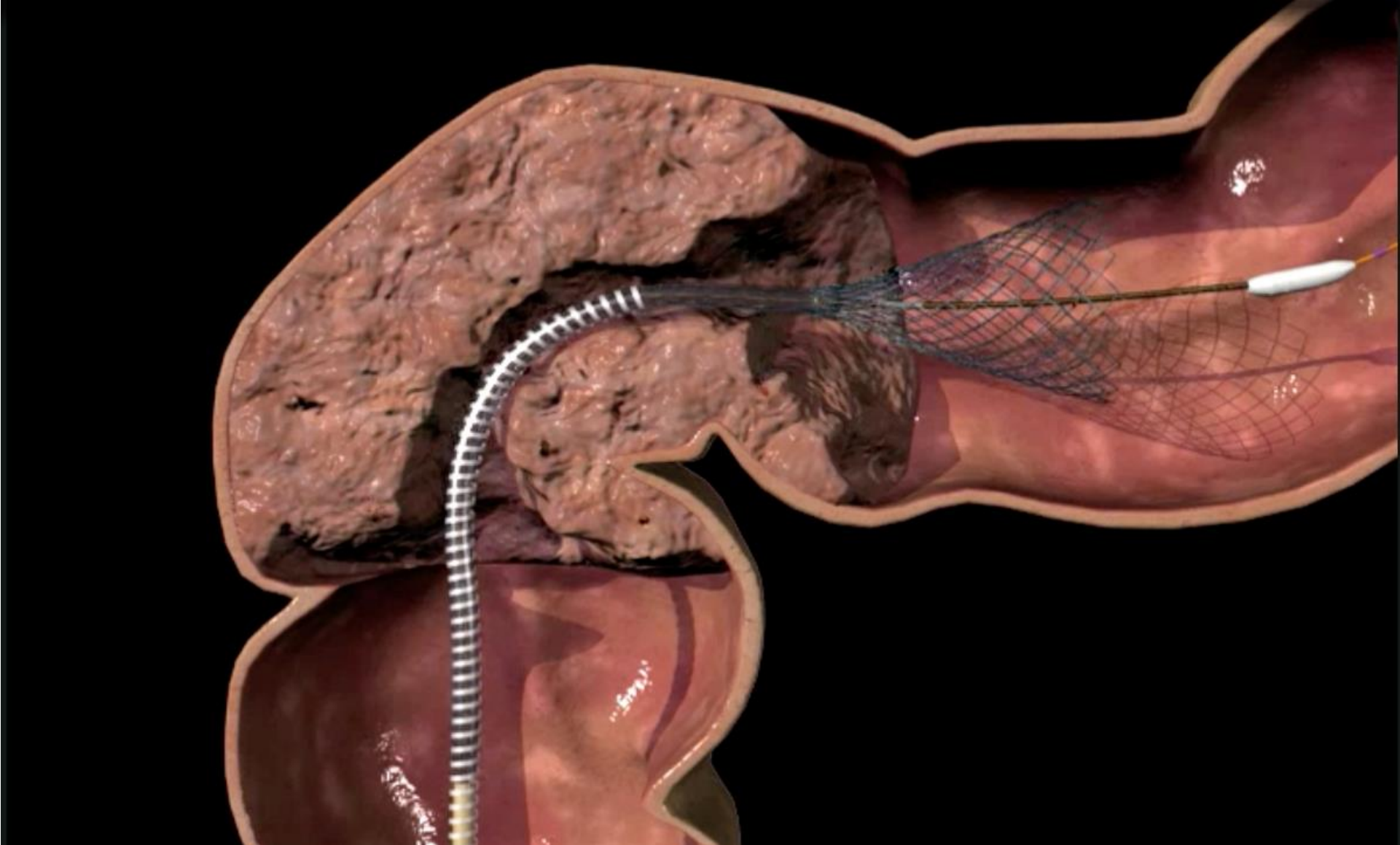




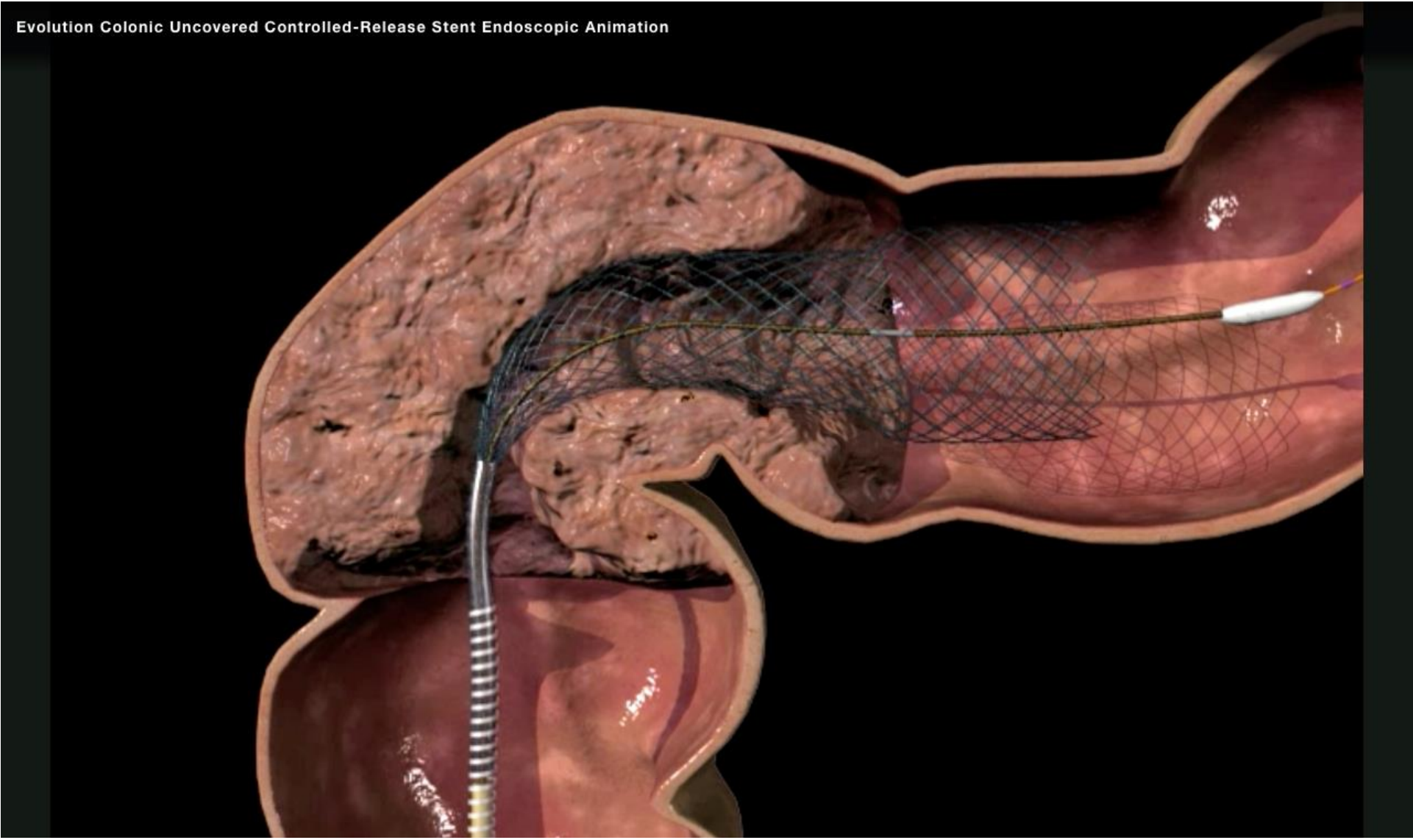




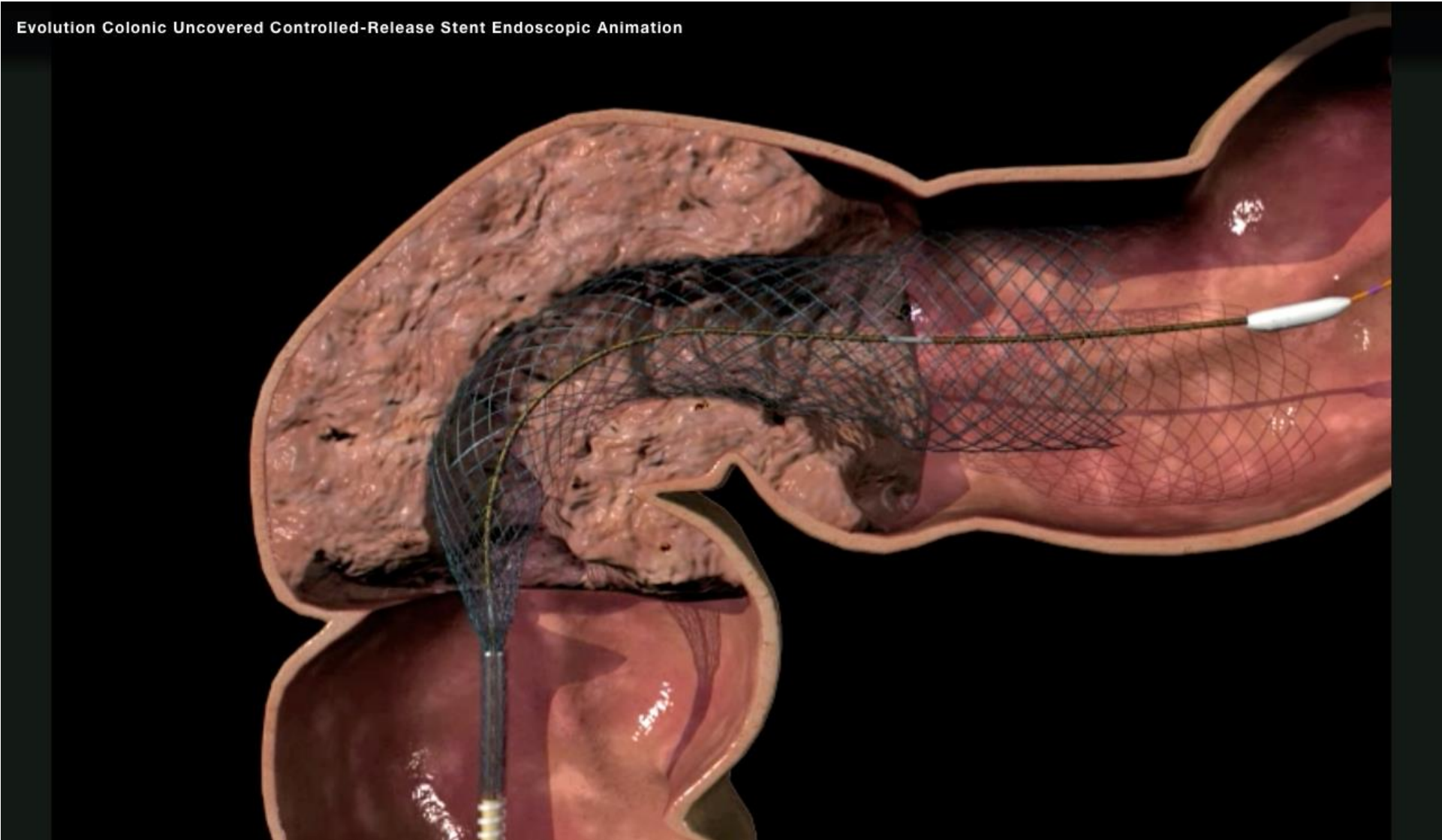




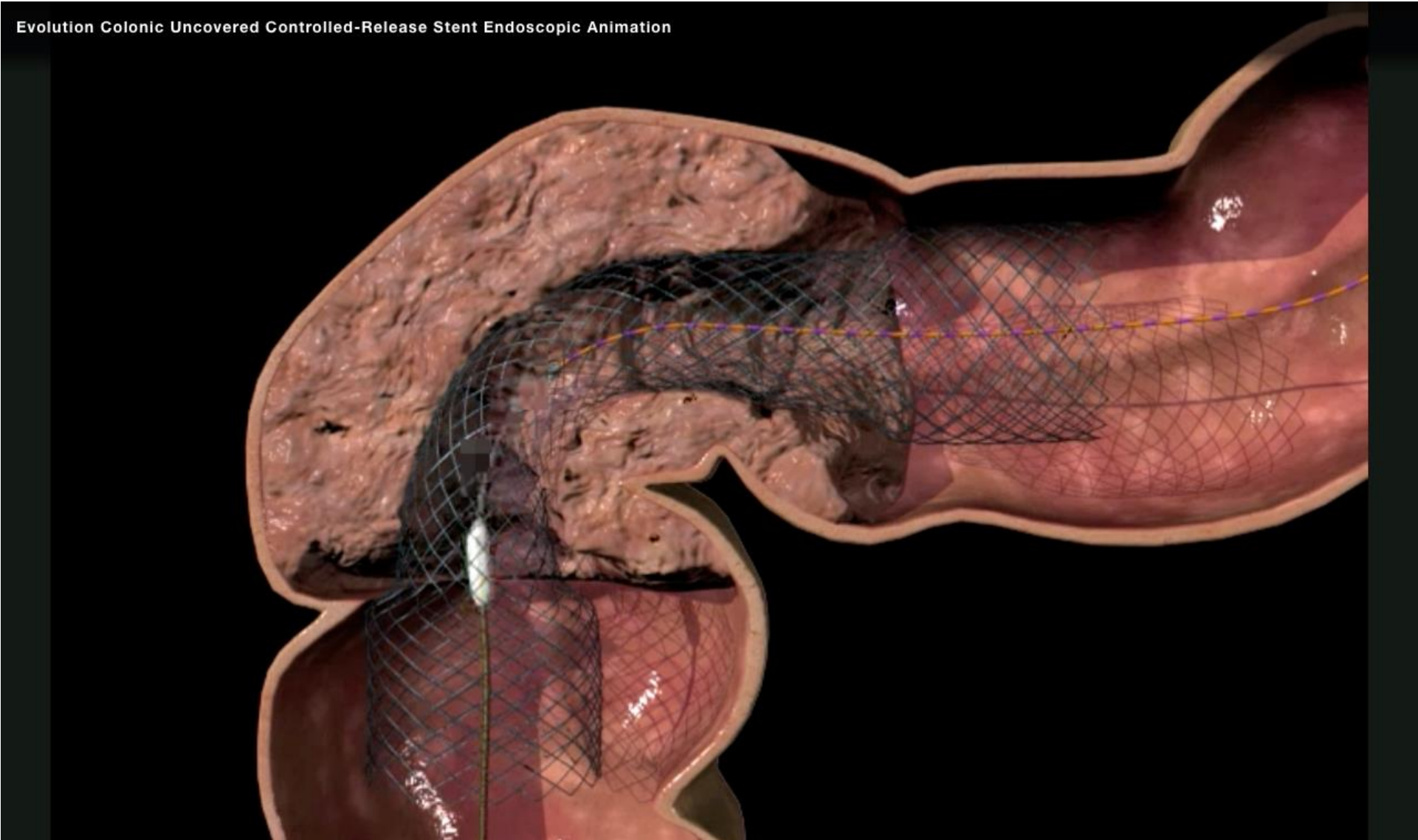
Evolution Colonic Uncovered Controlled-Release Stent Endoscopic Animation



Evolution Colonic Uncovered Controlled-Release Stent Endoscopic Animation



Evolution Colonic Uncovered Controlled-Release Stent Endoscopic Animation



ID. No. :

Name :

Sex: Age:

D. O. Birth:

01/01/2000

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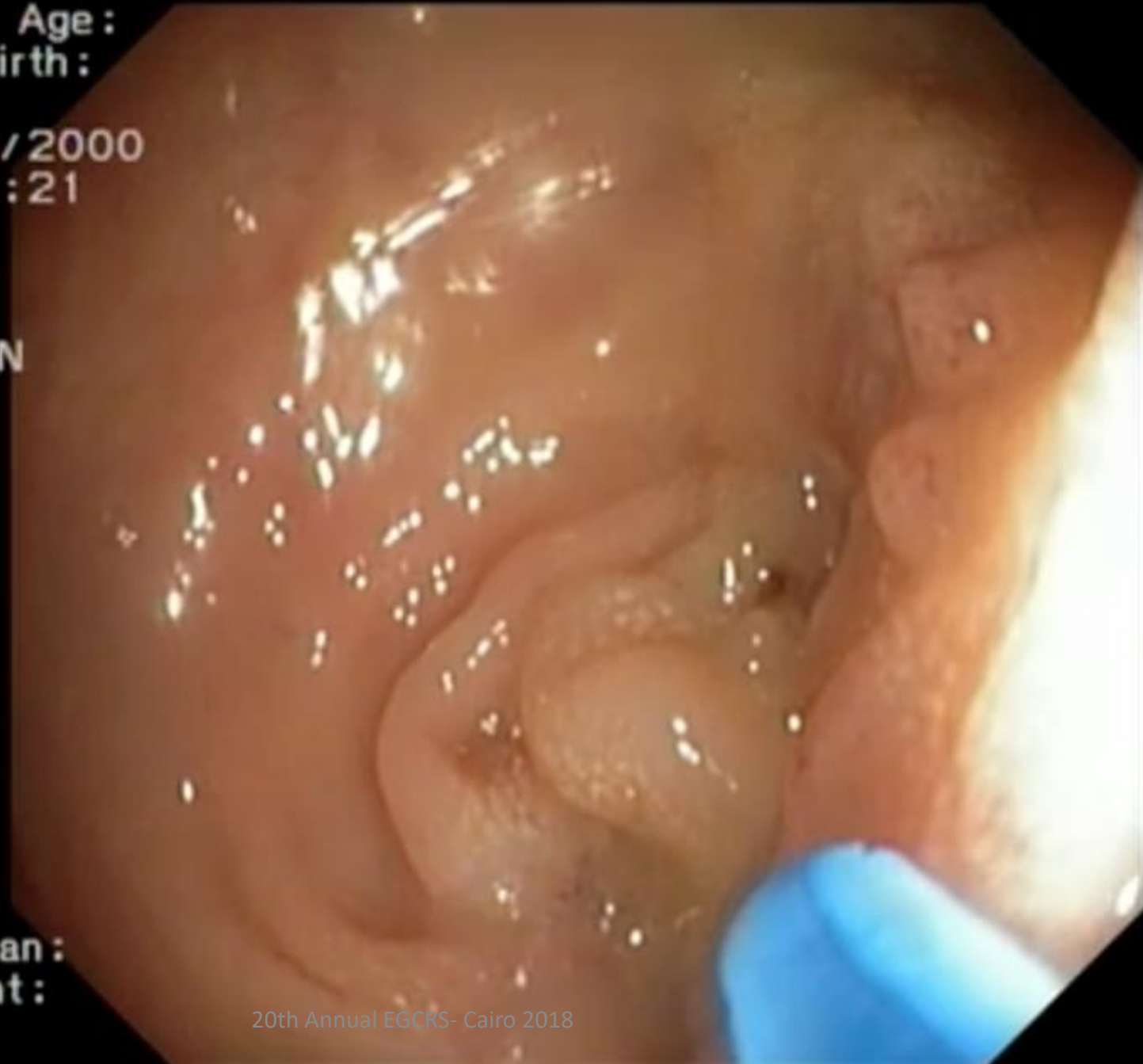
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Physician :

Comment :



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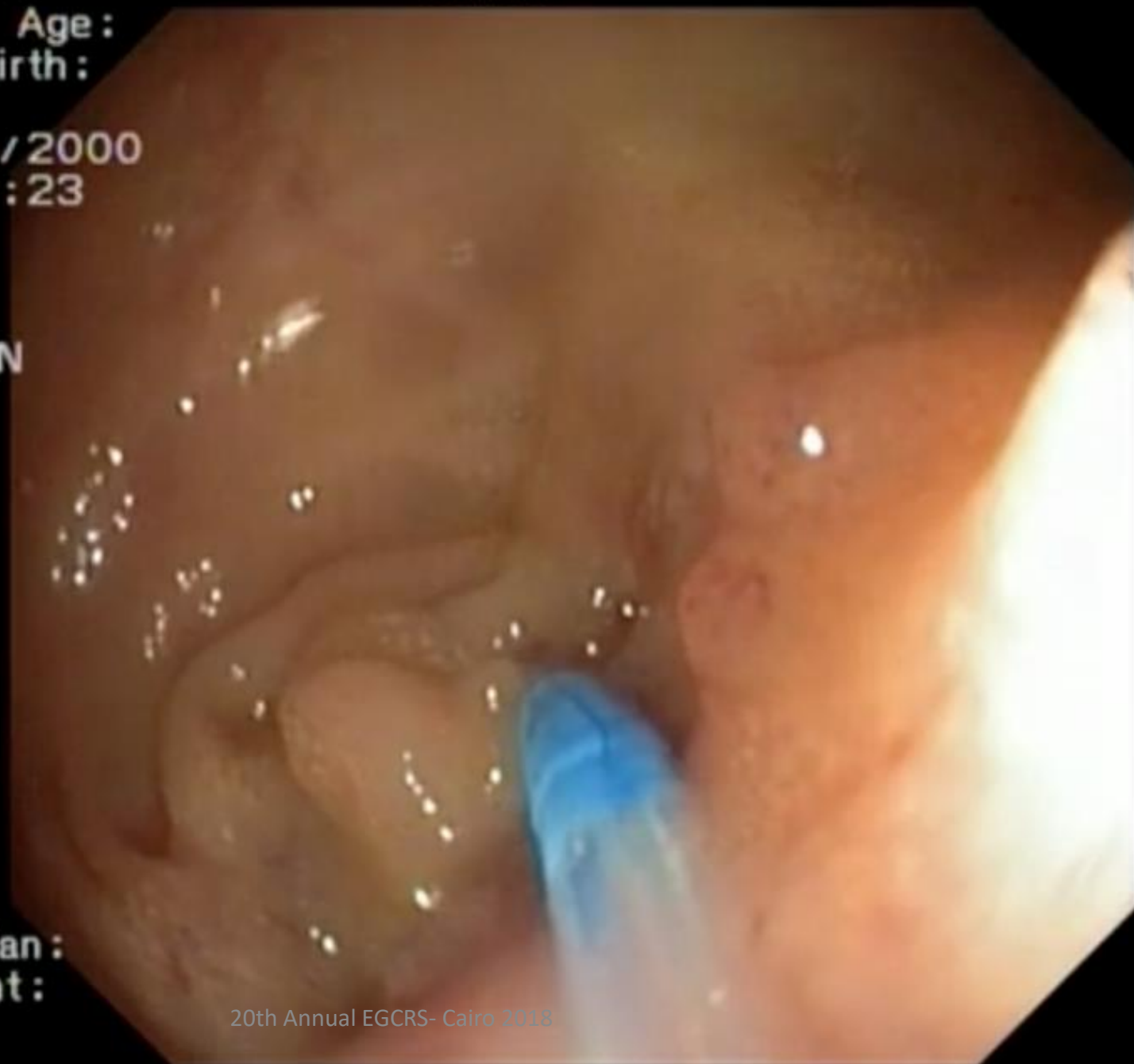
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Physician :

Comment :



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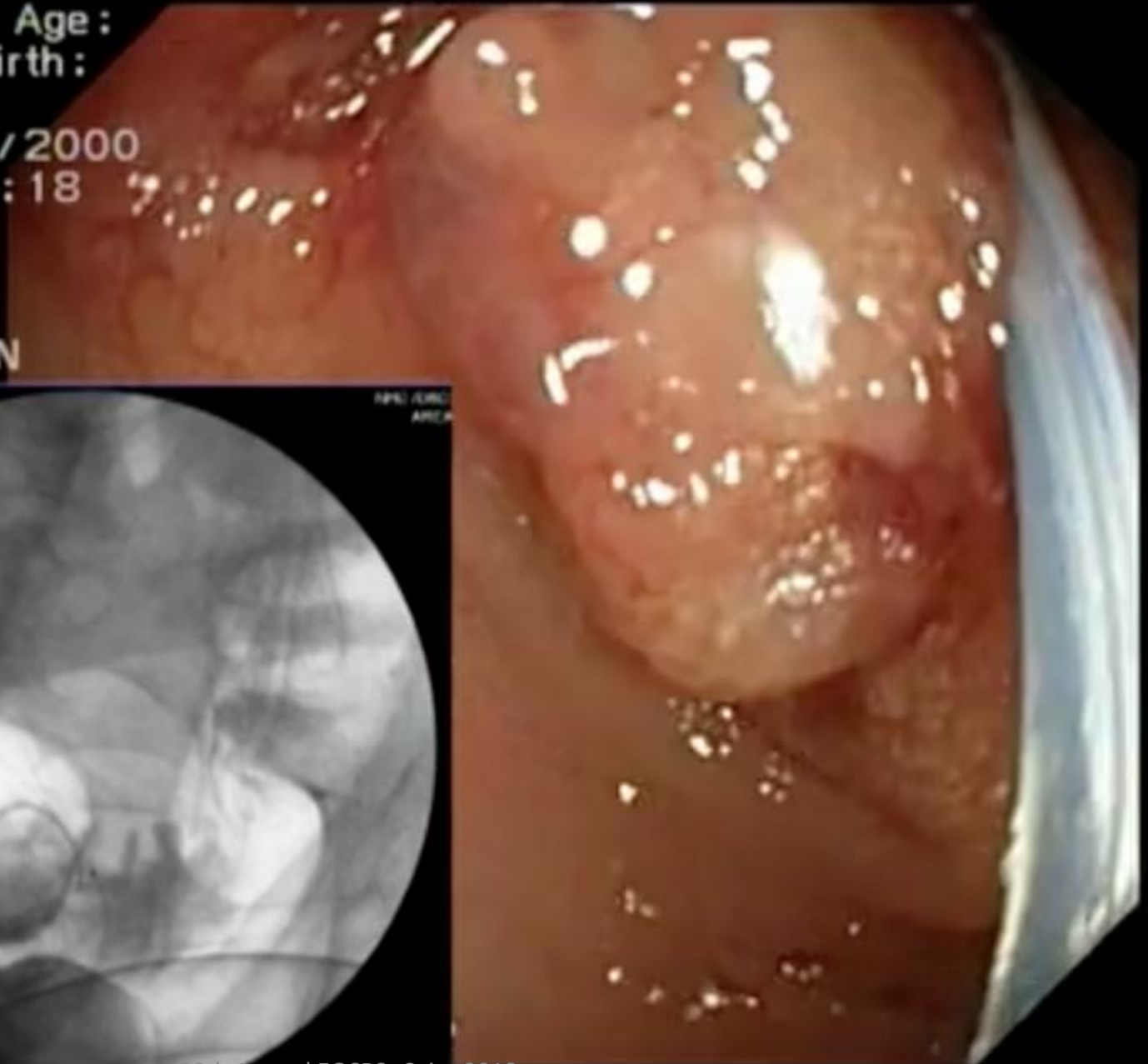
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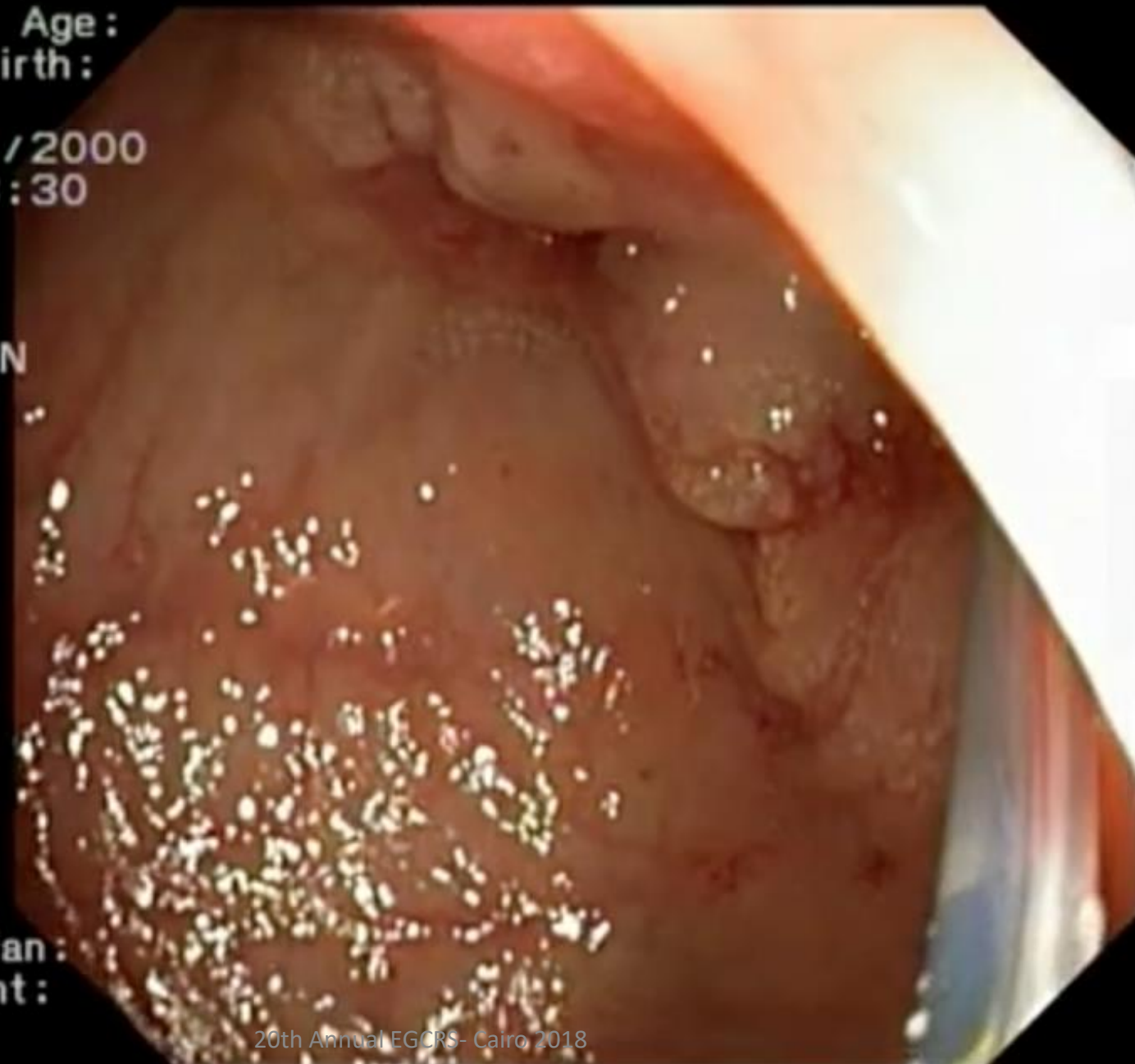
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Physician :

Comment :



ID. No. :■

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Sex: Age:

D. O. Birth:

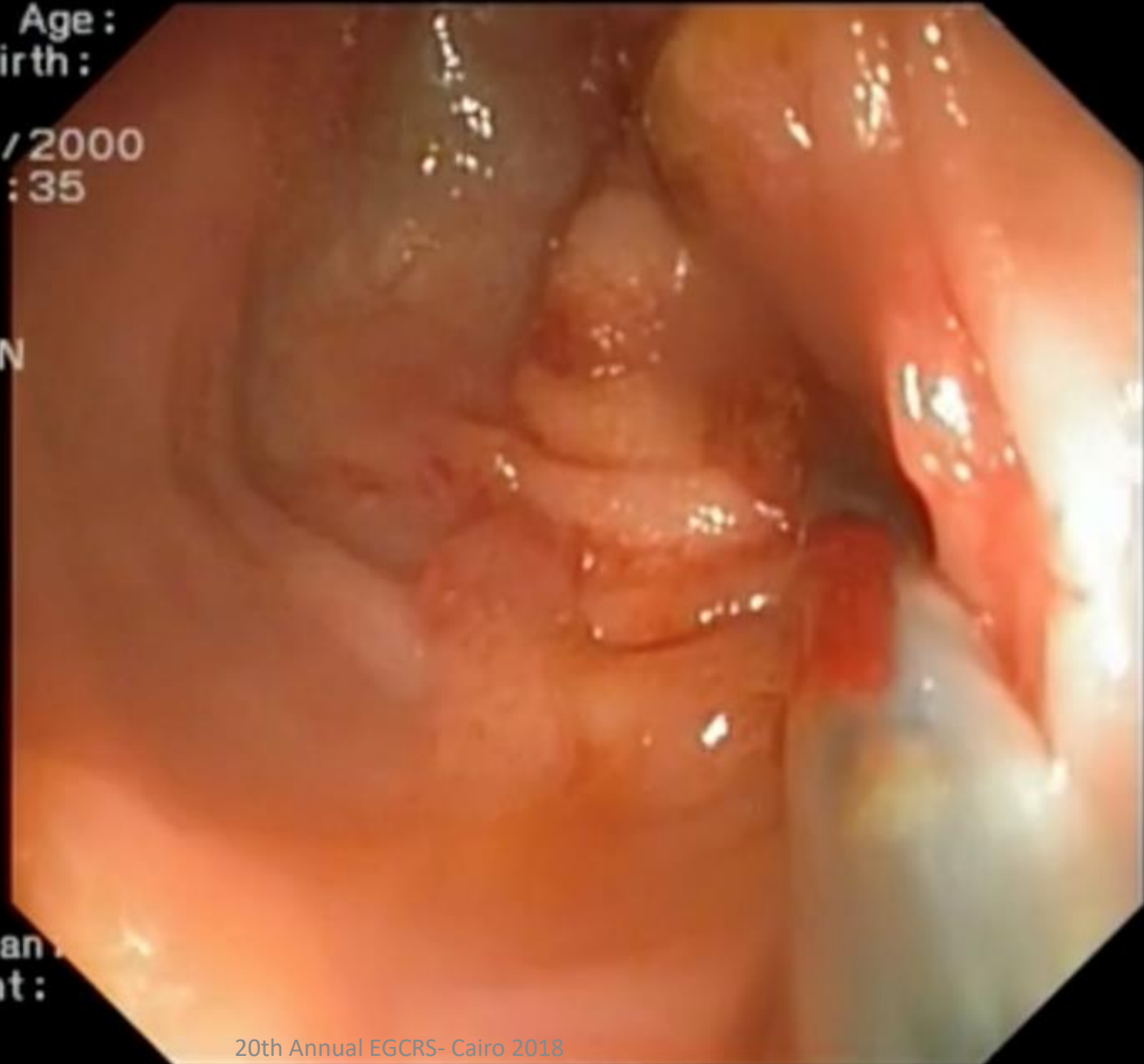
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Em: 1 Cr: N



Physician:

Comment:

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Sex : Age :

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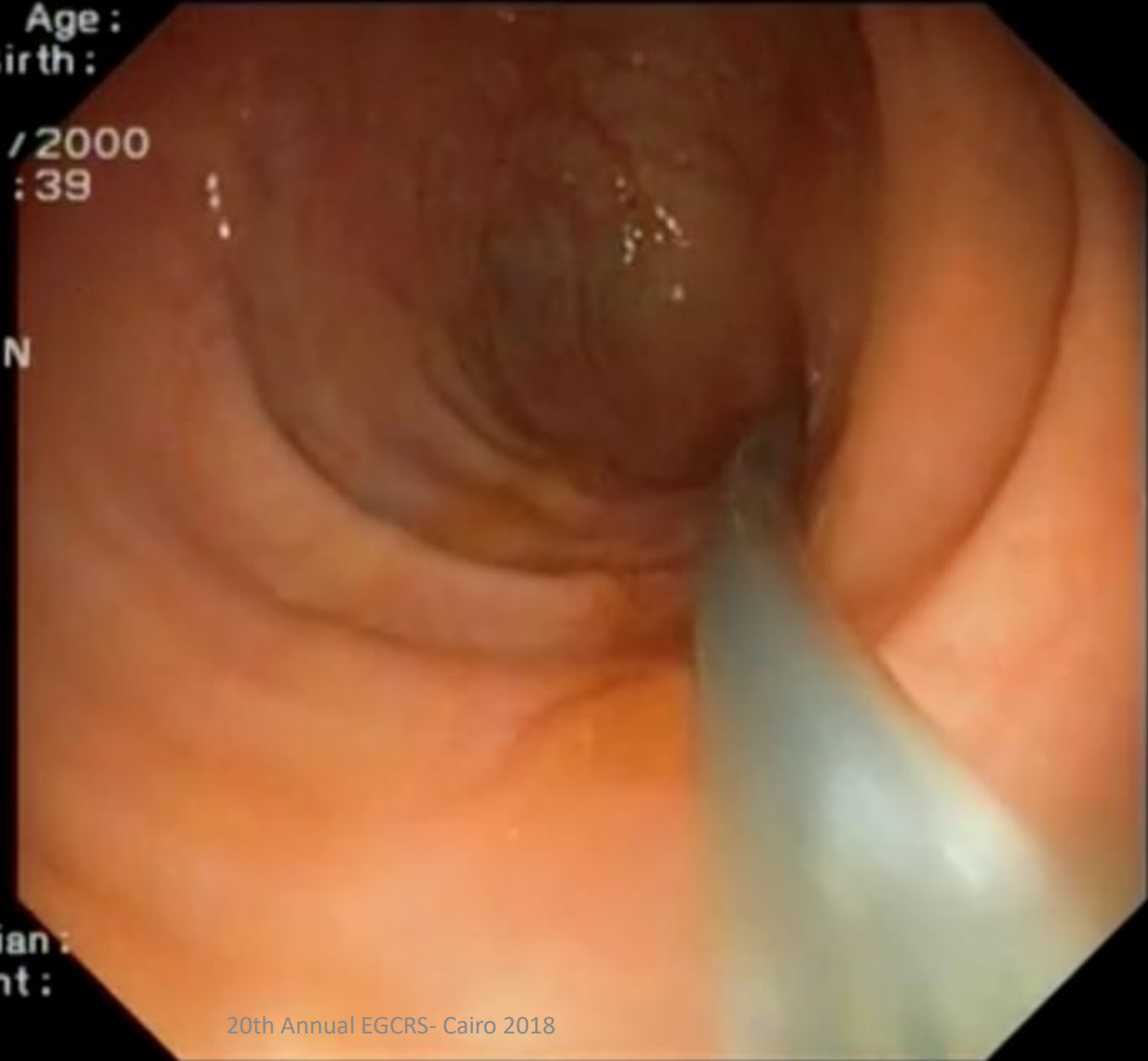
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D. F :

Ex: 1 Q: N



Physician :

Comment :

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D. O. Birth:

01/01/2000

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CVP:

D. F:

En: 1 Q: N



ID. No. : ■

Name :

Sex : Age :

D. O. Birth :

01/01/2000

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CVP :

D. F :

En: 1 Cr: N



ID. No. :

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Sex: Age:

D. O. Birth:

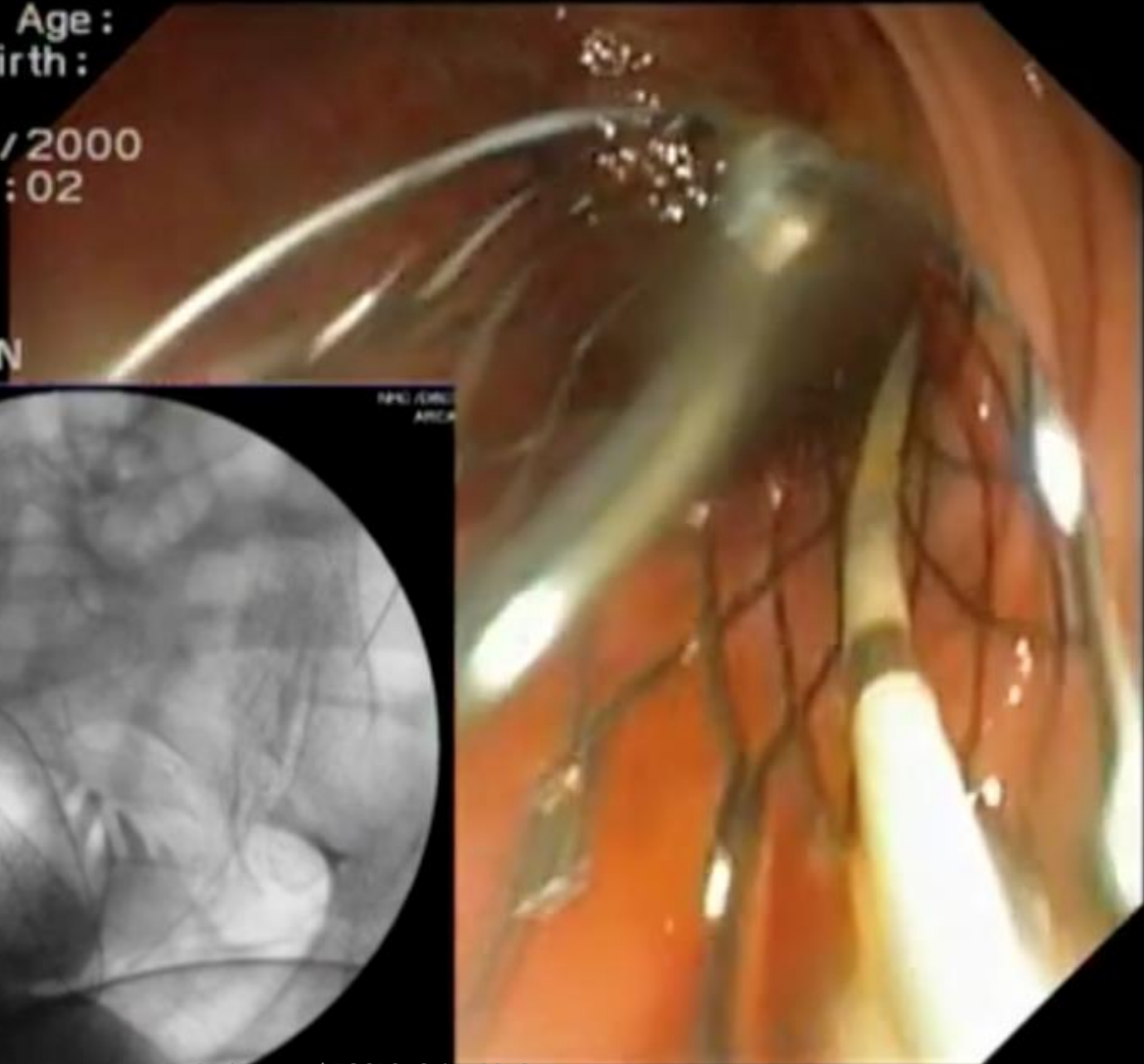
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D. F :

Em: 1 Gr: N

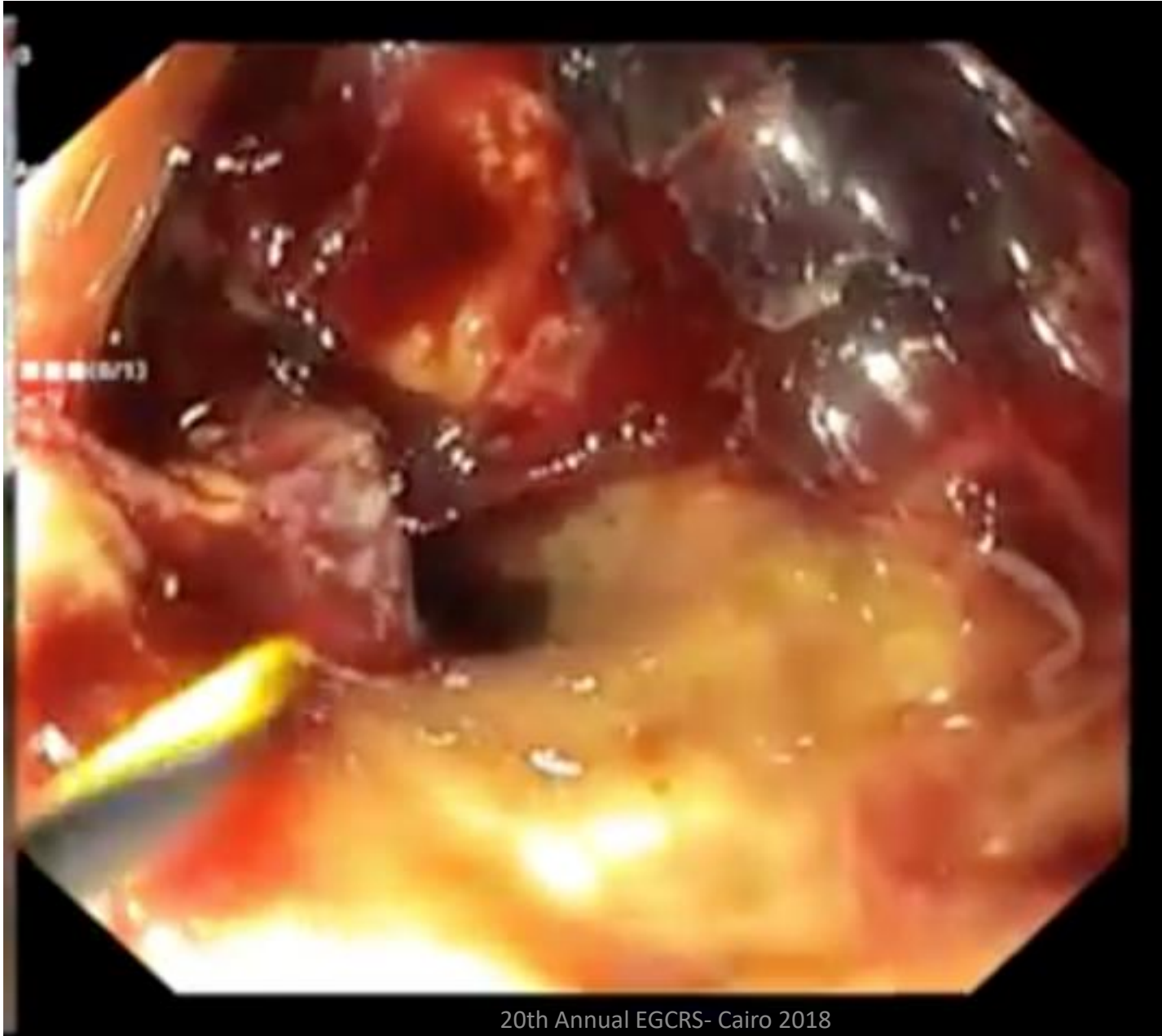
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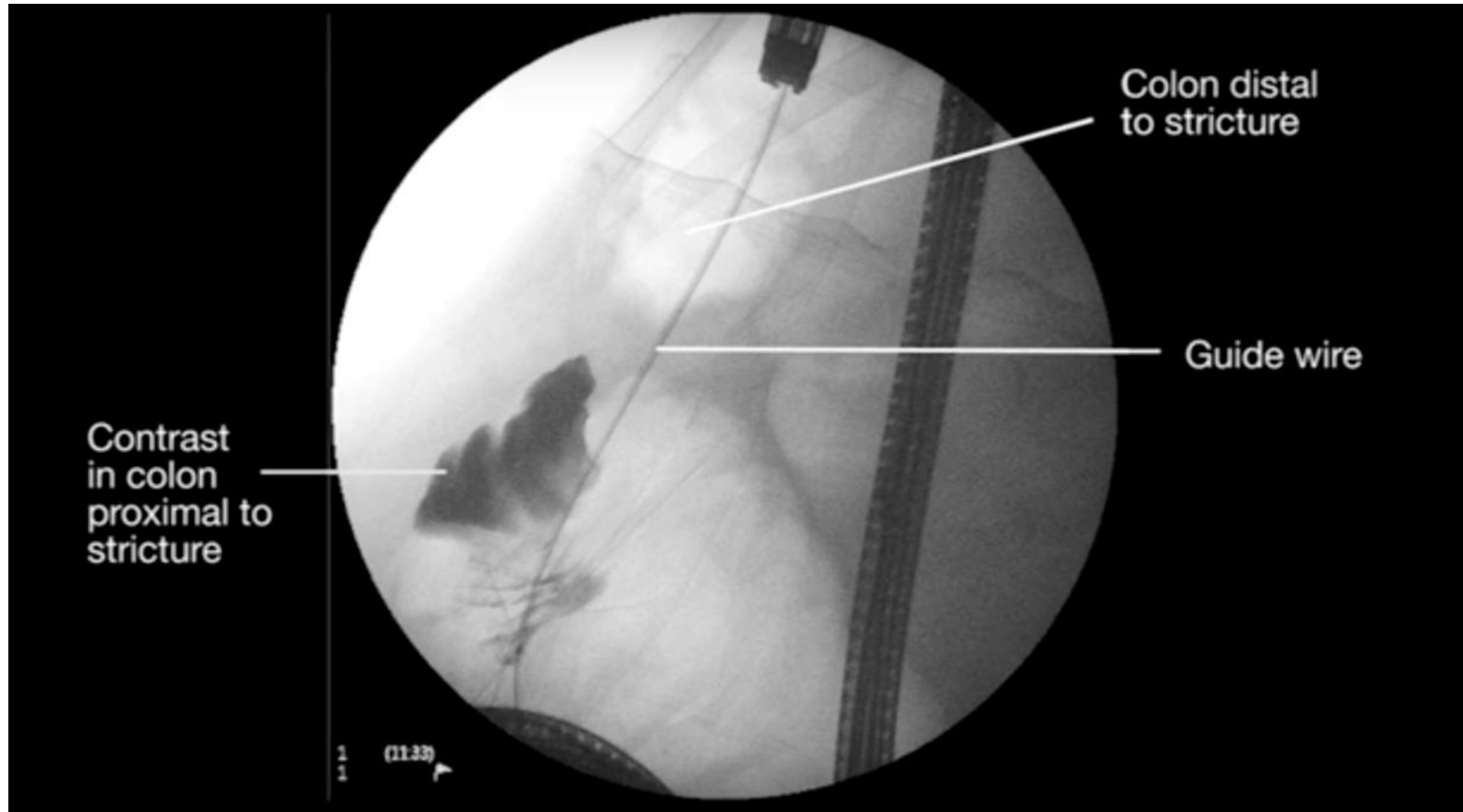
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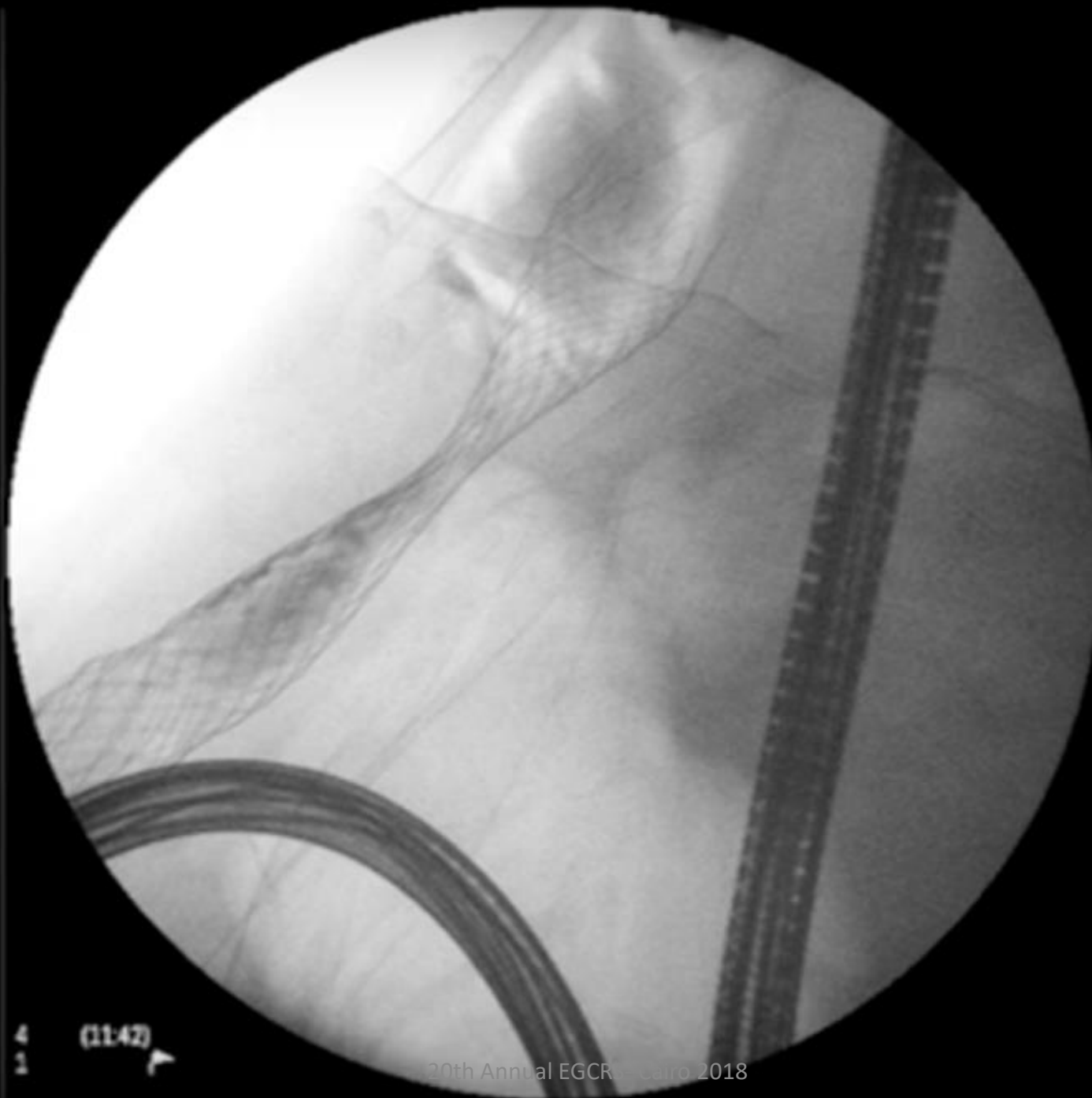




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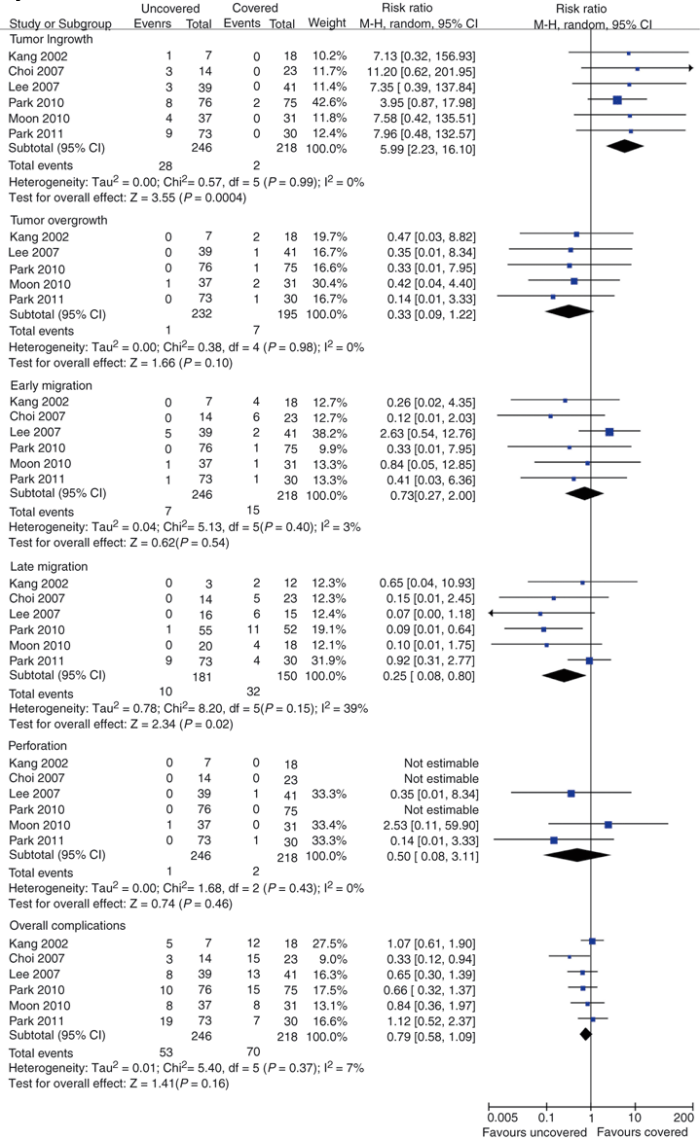
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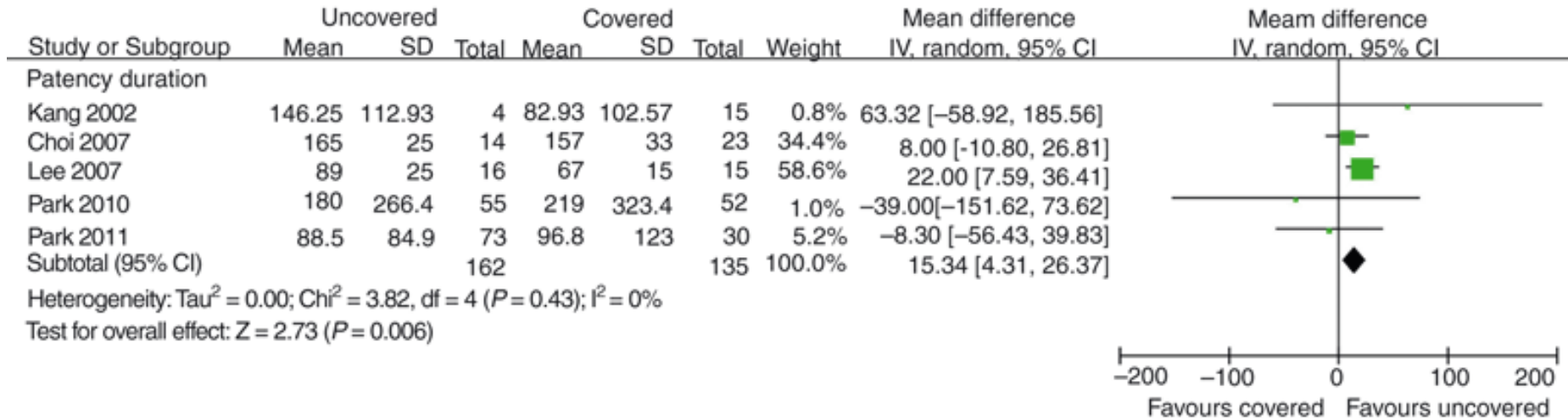
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Comparison of efficacy between uncovered and covered self-expanding metallic stents in malignant large bowel obstruction: a systematic review and meta-analysis



Comparison of efficacy between uncovered and covered self-expanding metallic stents in malignant large bowel obstruction: a systematic review and meta-analysis



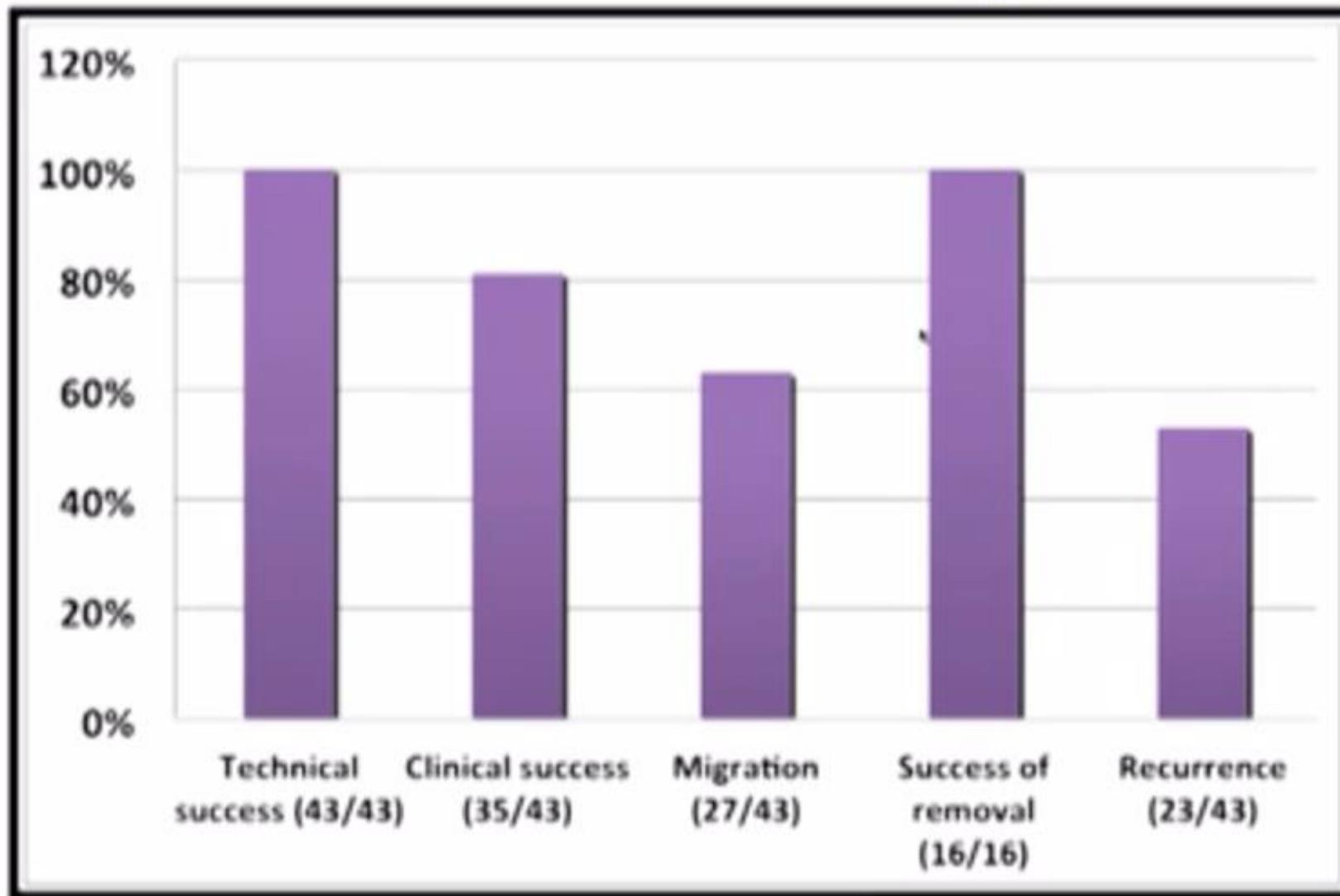
BENIGN COLORECTAL STENOSIS AND STENTS: RESULTS (1)

TO BE AVOIDED: 1- DIVERTICULAR STENOSIS
2- UNCOVERED STENTS

	n	STENT TYPE	Diverticular stenosis	Technical success	Clinical success	Migration	Severe complications
Small AJ et al <i>Surg Endosc</i> 2008	23	UNCOVERED	16/23	100%	95%	9%	38%
Forshaw MJ et al. <i>Colorectal Dis</i> 2005	11	UNCOVERED	3/11	81%	81%	10%	36%
Geiger TM et al. <i>Int J Colorectal Dis</i> 2008	53 (case review)	UNCOVERED (84%)	19/53	-	-	43%	21%
Keränen et al. <i>Scand J Gastro</i> 2010	21	UNCOVERED (57%)	10/21	100%	76%	38%	28%
Vanbiervliet et al. <i>Endoscopy</i> 2013	43	COVERED	-	100%	81%	63%	5%

**! Uncovered stent
and diverticulitis !**

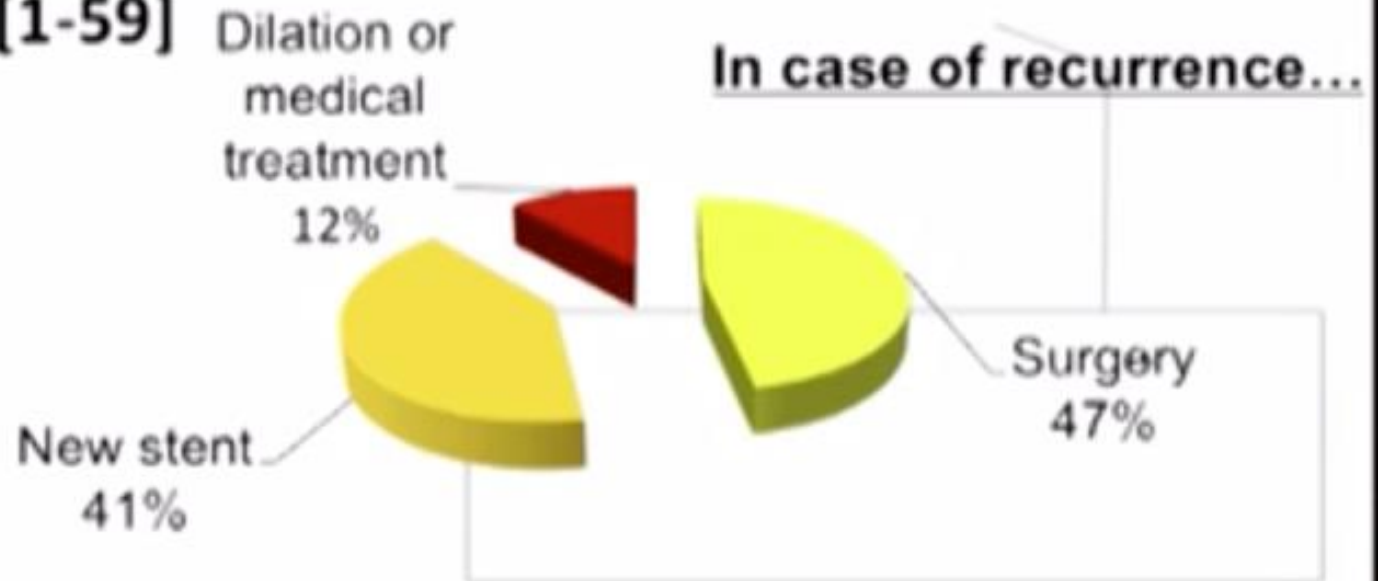
BENIGN COLORECTAL STENOSIS AND STENT : RESULTS (2)



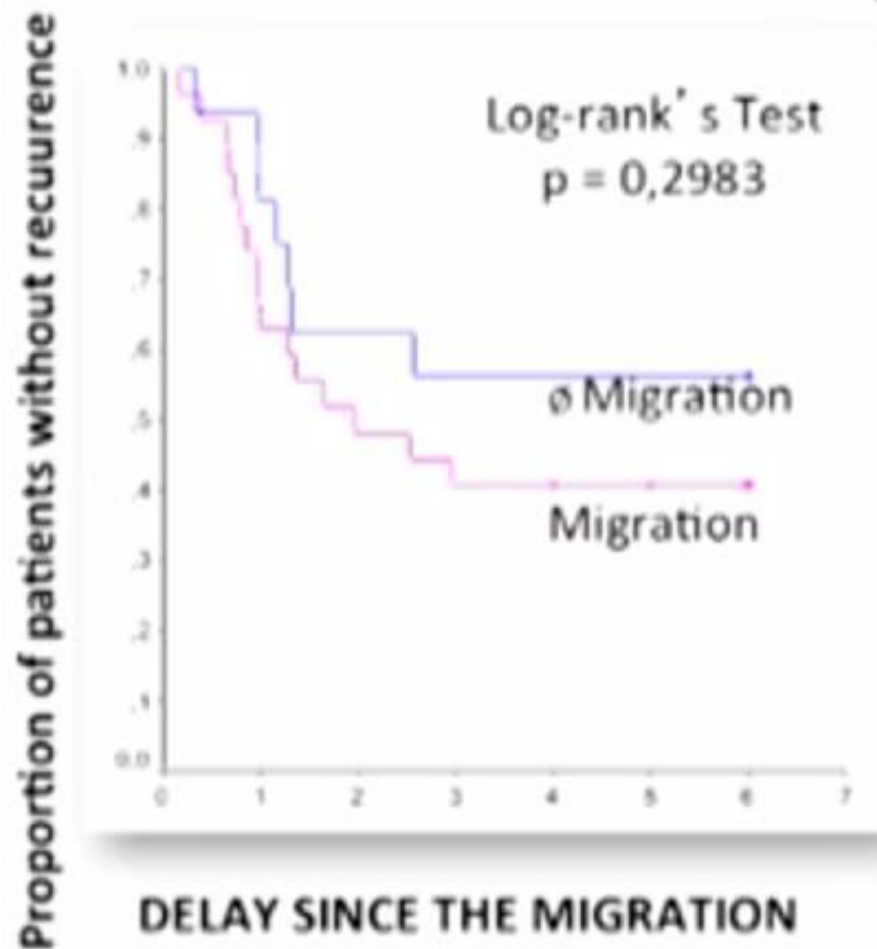
BENIGN COLORECTAL STENOSIS AND STENT : RESULTS (3)

Mean duration of calibration
26.6 days \pm 28.6 [1-130]

Mean delay for migration
14.6 days \pm 7.1 [1-59]



BENIGN COLORECTAL STENOSIS and STENT : RESULTS (4)



Mean F-U 16.3 months \pm 15,5 [1-55]

Recurrence in 23 patients (53%)

Reccurences occur within 3 months

Recurrence independent from migration

BENIGN COLORECTAL STENOSIS and STENT : RESULTS (5)

Review, 130 articles Currie A et al, Colorectal Dis 2013

Diverticulitis: 54% (66/122)

Technical success: 94% (115/122)

Clinical success: 87% (108/120)

Perforation rate: 12% (15/122)

Reobstruction rate: 14% (17/122)

Stoma avoided in 48% (23/48) of bridge to surgery patients

Perforation and stoma avoidance in the bridge to surgery group were worse with diverticulitis aetiology

Thank You