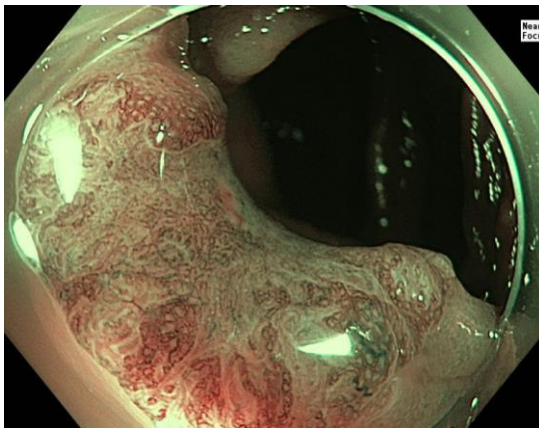
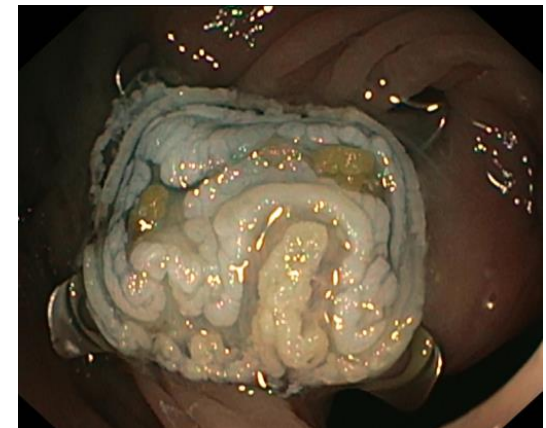


## Results of the Dutch FTRD® registry: Closing the gap between endoscopy and surgery



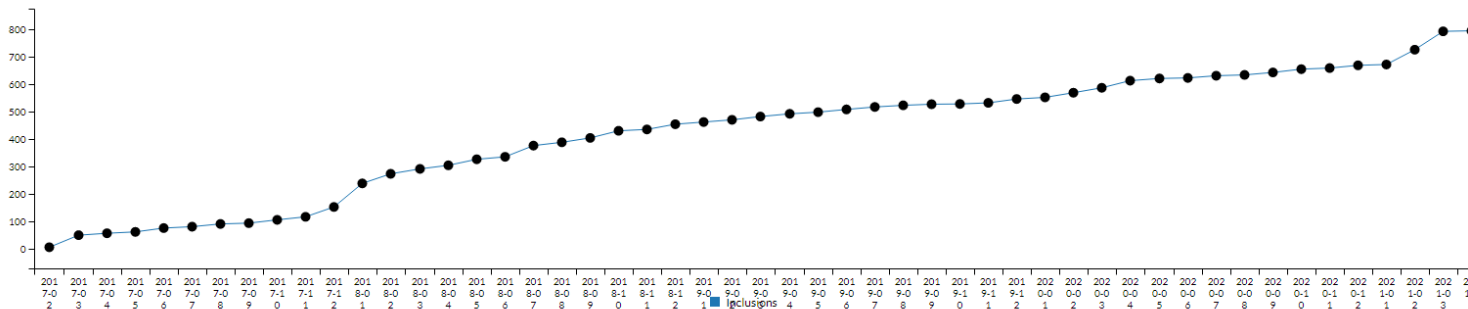
*Barbara Bastiaansen  
Gastroenterologist  
Amsterdam UMC*

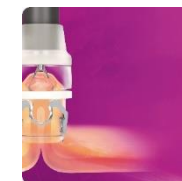




## Dutch prospective eFTR registry

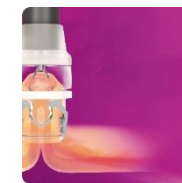
- Prospective multicenter registry
- Started august 2015
- 29 participating hospitals
  - 41 certified endoscopists
- **> 800 eFTR registered procedures**





## Endoscopic full-thickness resection (eFTR) of colorectal lesions: results from the Dutch colorectal eFTR registry

	Overall	T1 CRCs	Difficult polyps	Subepithelial tumors
Initiated eFTR procedures, n	367	221	133	13
Technical success, n (%)	308 (83.9)	191 (86.4)	105 (78.9)	12 (92.3)
Procedures amenable to eFTR, n <sup>1</sup>	346	211	122	13
Resection, n (%)				
▪ R0	285 (82.4)	186 (88.2)	86 (70.5)	13 (100)
▪ Full-thickness	288 (83.2)	176 (83.4)	100 (82.0)	12 (92.3)
Lesion diameter, median (IQR), mm <sup>2</sup>				
▪ Lesion	12 (8 – 17)	13 (9 – 18)	12 (8 – 15)	9 (5 – 15)
▪ Resected specimen	23 (20 – 28)	23 (19 – 27)	23 (20 – 29)	26 (20 – 30)



## Dutch prospective eFTR registry

Procedures, total (%)	N = 649 (100)
Colon	512 (78.9)
Cecum	45 (6.9)
Appendix	34 (5.2)
Ascending colon	96 (14.8)
Hepatic flexure	29 (4.5)
Transverse colon	52 (8.0)
Splenic flexure	11 (1.7)
Descending colon	37 (5.7)
Sigmoid	208 (32.0)
Rectum	137 (21.1)
Rectum	137 (21.0)



## Dutch prospective eFTR registry

Patients, total (%)	N = 640 (100)
Male, n (%)	401 (62.7)
Age (mean in years $\pm$ sd)	69 $\pm$ 8.9
Indications	649 (100)
T1 CRC	440 (68.8)
Primary treatment	212 (32.7)
Secondary treatment	228 (35.1)
Difficult adenoma	182 (28.0)
Subepithelial tumor	26 (4.0)
Other	1 (0.2)
Median size in mm (IQR)	12 (10 – 15)
Median size in mm (IQR) without scars	15 (10 – 18)

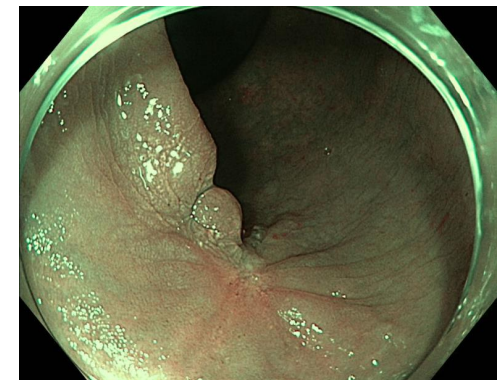
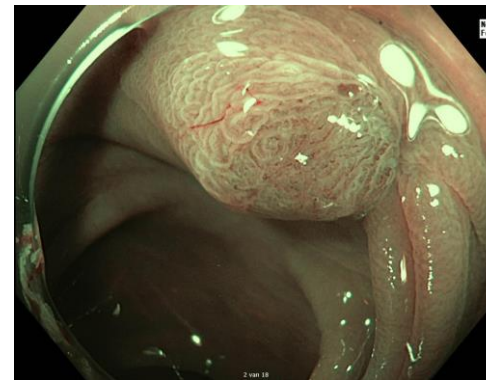
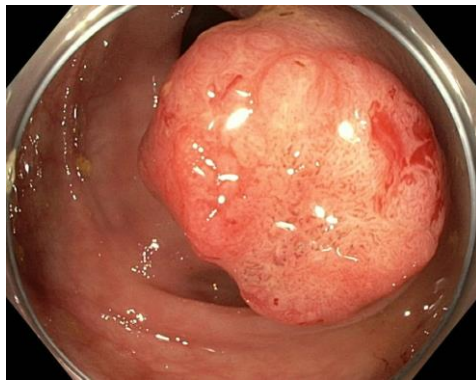
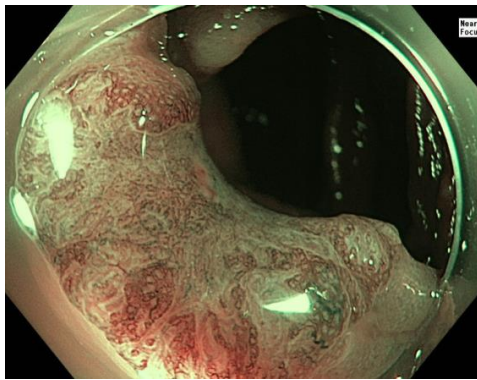




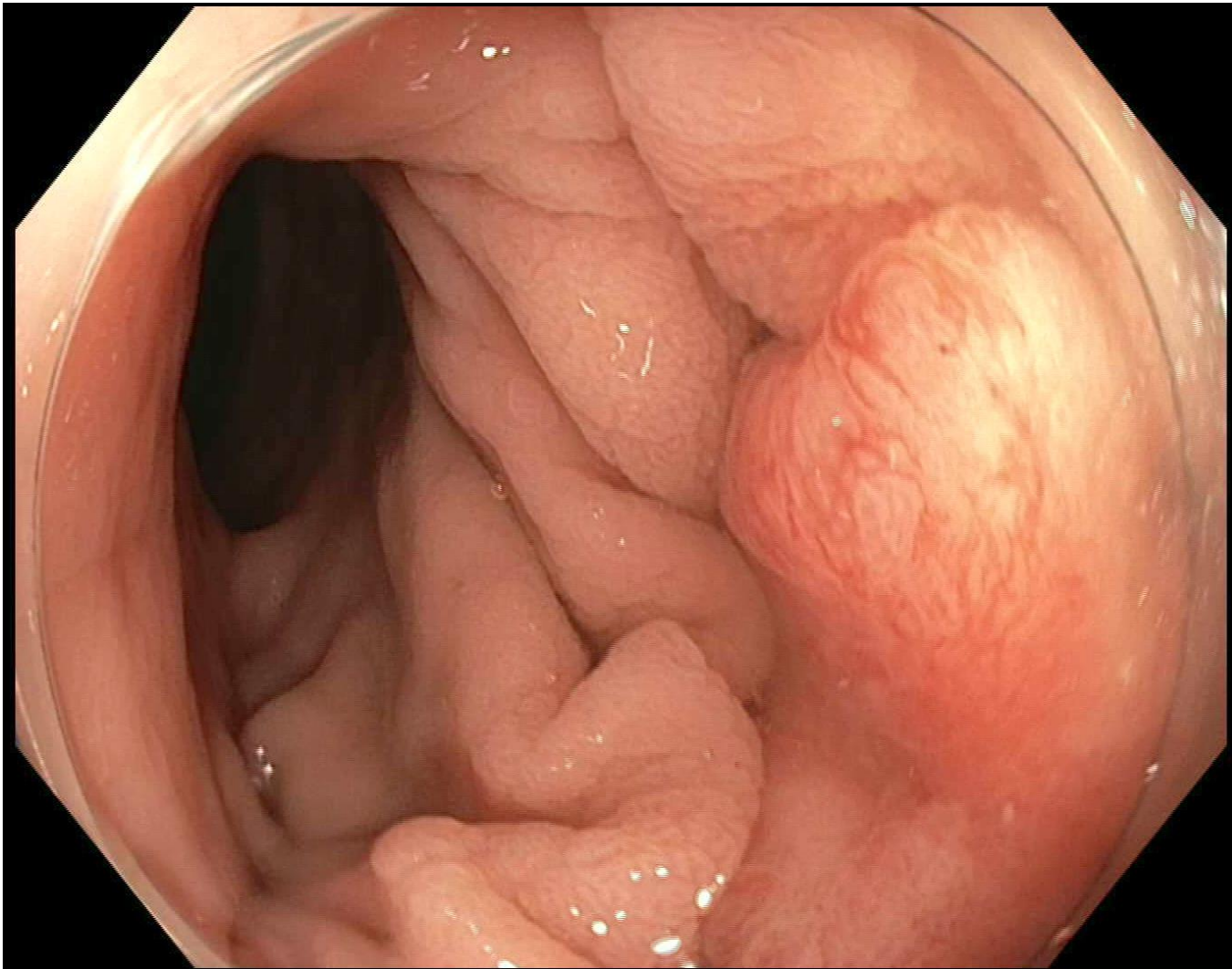
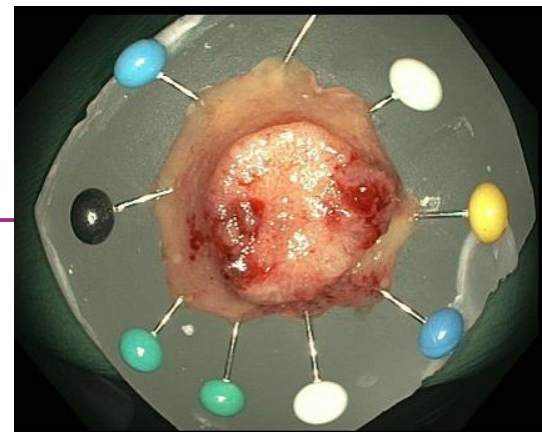
## eFTR for T1 colorectal cancer



- Primary treatment as “excisional biopsy”
- Secondary completion treatment after previous incomplete resection R1/Rx



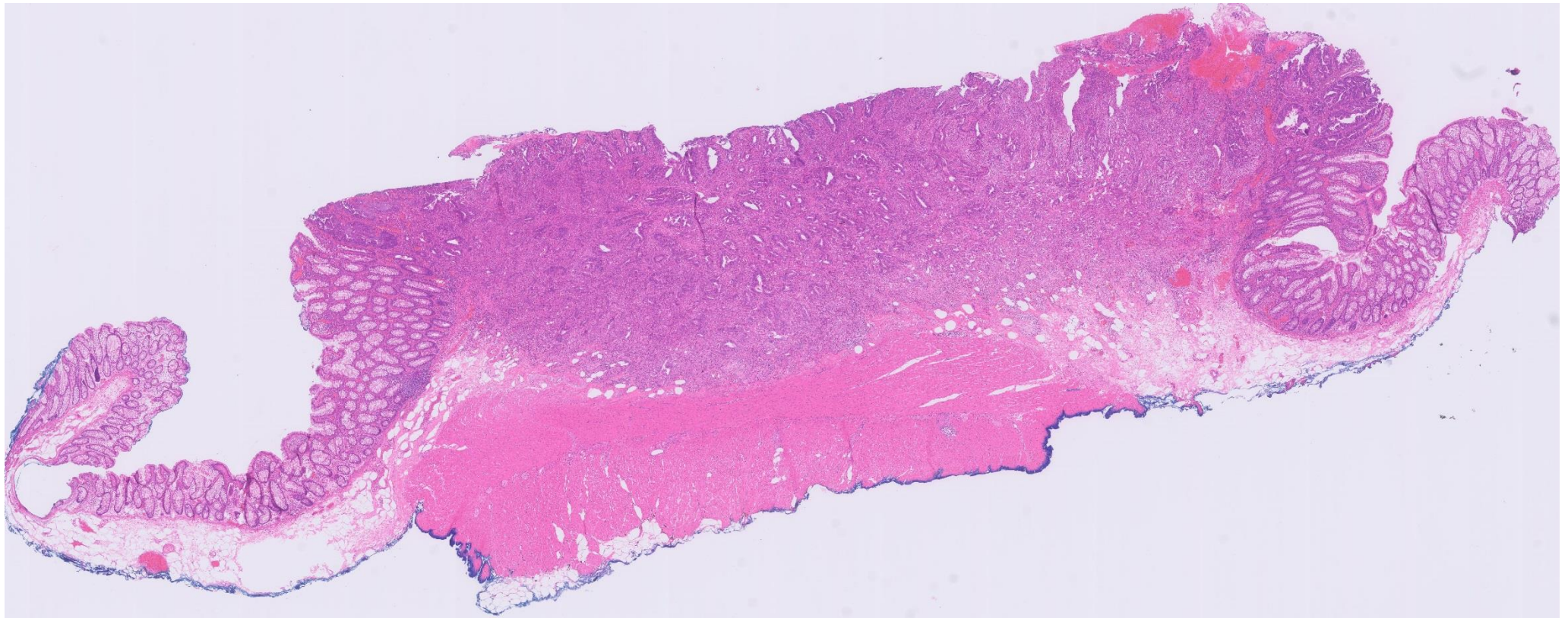
## Expanding the horizons...







## Histopathology

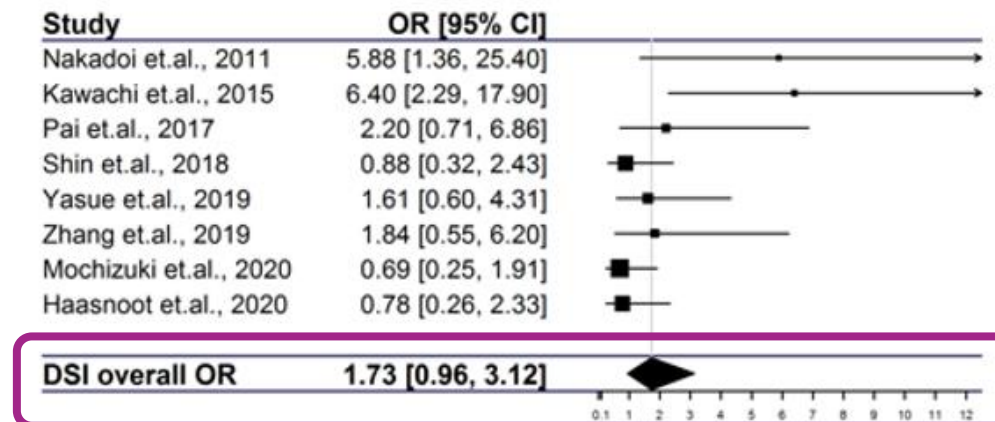






## Deep submucosal invasion is NOT an independent risk factor for LNM- meta-analysis

- Pooled incidence rate for LNM if only deep invasion is present is 2.6%
- Meta-analysis 8 studies including 3621 patients:

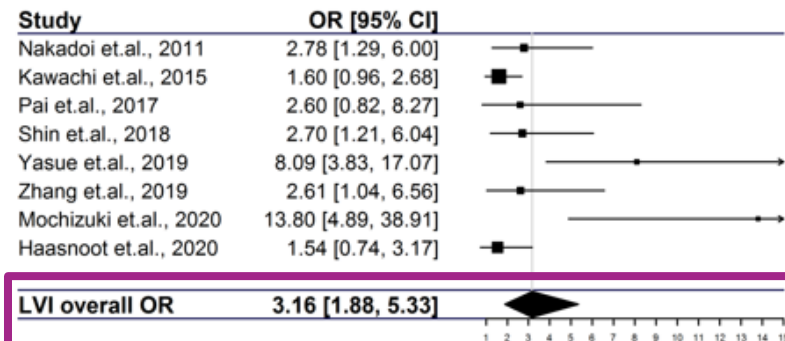
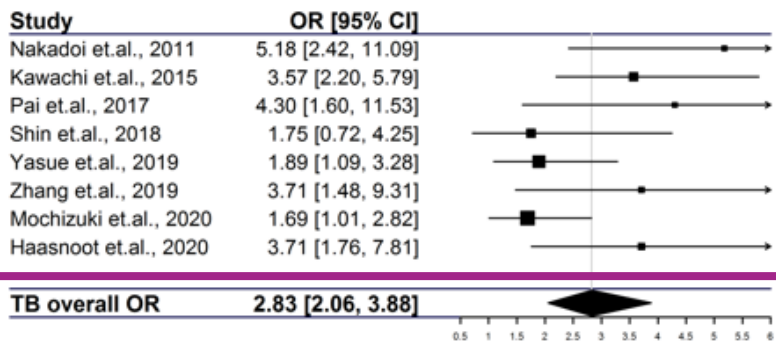
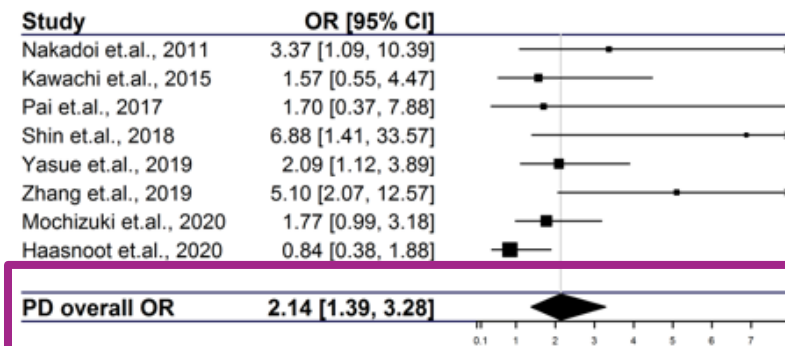
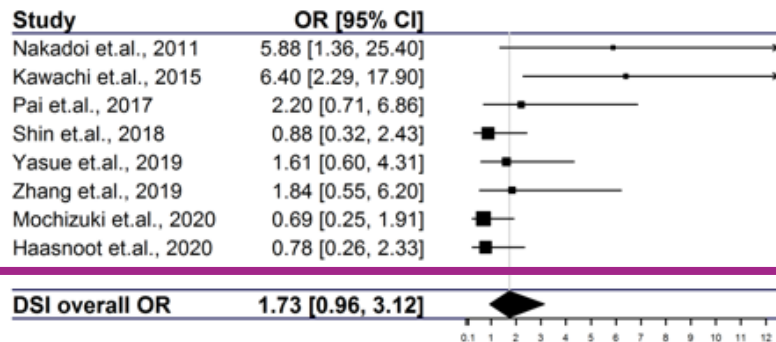


Liselotte W. Zwager, oral presentation abstract 498, ESGE days 26 march 2021 & DDW 2021



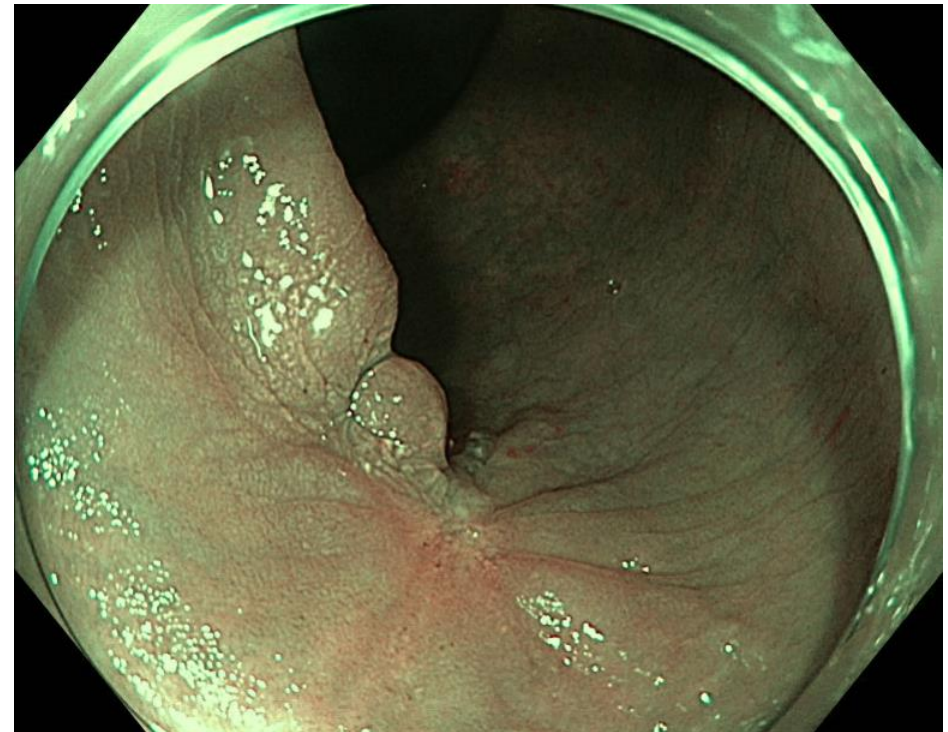
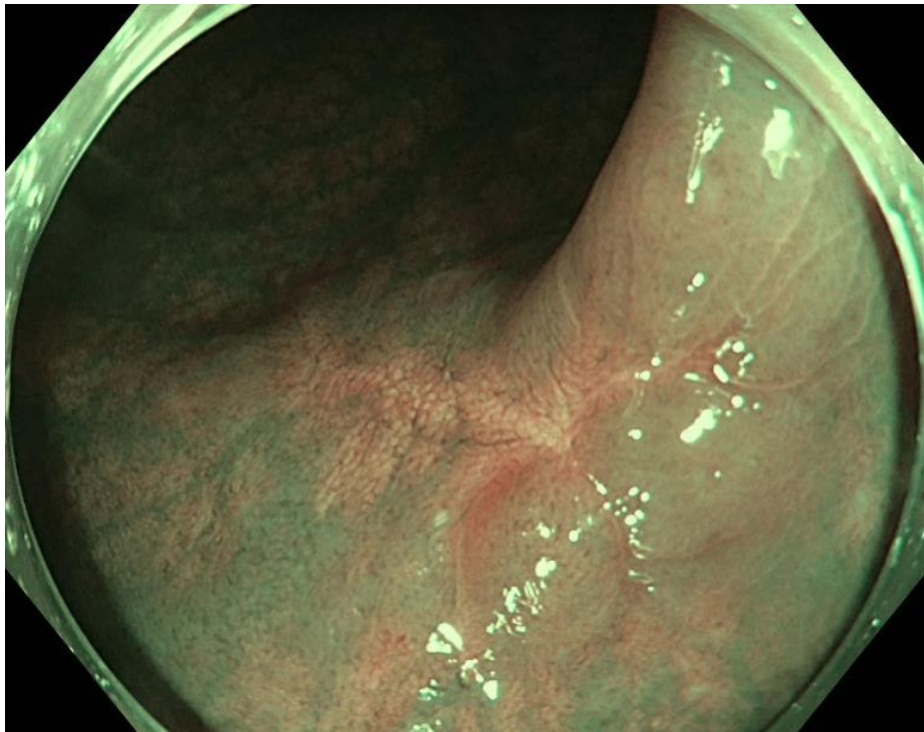
# Deep submucosal invasion is NOT an independent risk factor for LNM

8 studies including 3,621 patients





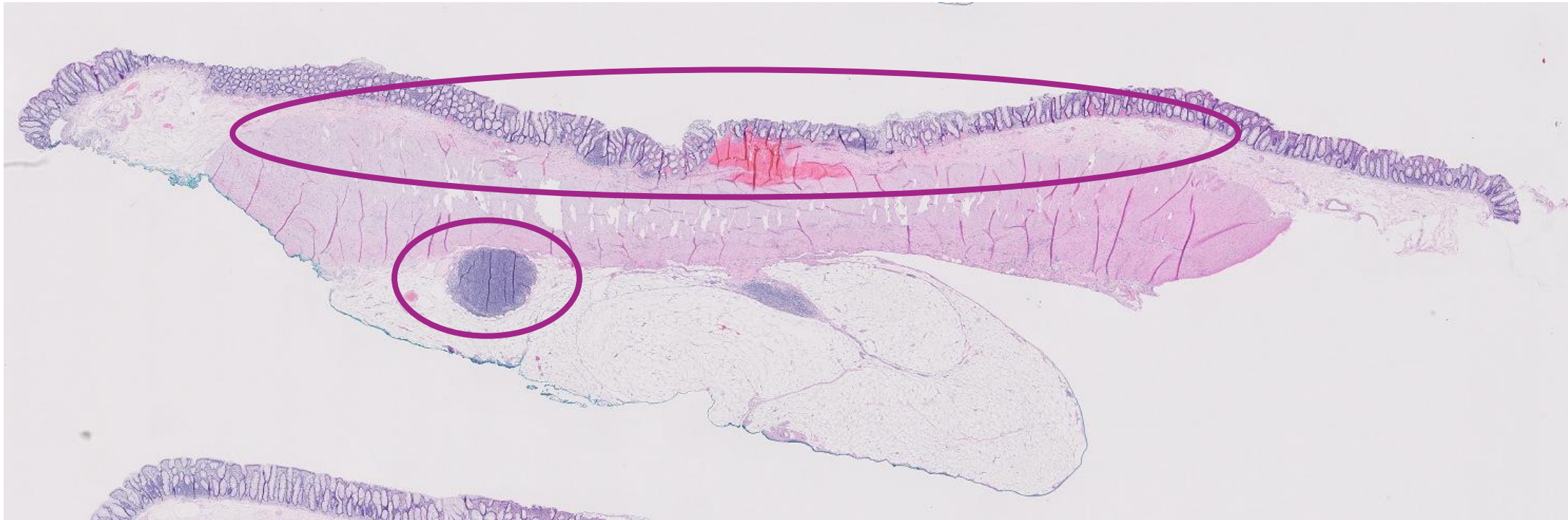
## Completion eFTR after previous incomplete resection T1







## Completion eFTR after previous incomplete resection T1







## Dilemma in T1 CRC..

Endoscopy

Vs

Surgery

- ✓ Locoregional recurrence
- ✓ Lymphatic spread
- ✓ Cancer related death



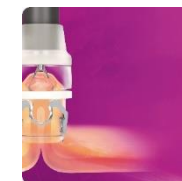
- ✓ Morbidity
- ✓ Mortality
- ✓ Functional loss

**~ 90% overtreated with surgery!**



## Shared decision..





## eFTR for T1CRC

Procedures, total (%)	N = 330 (100)
Male, n (%)	211 (65.1)
Age (mean in years $\pm$ sd)	68.9 $\pm$ 8.5
Primary treatment	132 (40.0)
Secondary treatment	198 (60.0)
Median size, mm (IQR)	15 (12 – 17)
Proximal (cecum – splenic flexure)	100 (30.3)
Distal (descending colon – rectum)	230 (69.7)



## Technical success

	Overall (n=330)	Primary treatment (n=132)	Secondary treatment (n=198)
Technical success, n (%)	287 (87.0)	118 (89.4)	169 (85.4)





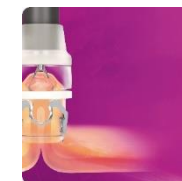
## R0 resection

	Overall (n=320)	Primary treatment (n=128)	Secondary treatment (n=192)
R0 resection, n (%)	274 (85.6)	105 (82.0)	169 (88.0)
Full-thickness resection, n (%)	258 (80.6)	105 (82.0)	153 (79.7)



## Histology

	Overall (n=320)	Primary treatment (n=128)	Secondary treatment (n=192)
T1 CRC, n (%)	112 (35.0)	97 (75.8)	15 (7.8)
T2 CRC, n (%)	23 (7.2)	12 (9.4)	11 (5.7)
Adenoma with LGD, n (%)	15 (4.7)	8 (6.3)	7 (3.6)
Adenoma with HGD, n (%)	10 (3.1)	6 (4.7)	4 (2.1)
Sessile serrated lesion, n (%)	4 (1.3)	2 (1.6)	2 (1.0)
Normal scar tissue, n (%)	151 (47.2)	2 (1.6)	149 (77.6)
Other, n (%)	4 (1.3)	1 (0.8)	3 (1.6)
No pathology obtained, n (%)	1 (0.3)	0 (0)	1 (0.5)



## Risk assessment

	Primary treatment (n=97)	Secondary treatment (n=15)
<b>Low-risk, n (%)</b>	<b>27 (27.8)</b>	<b>3 (20.0)</b>
R0 resection	23 (85.2)	0 (0)
R1/Rx resection	4 (14.8)	3 (100)
<b>High-risk, n (%)</b>	<b>69 (71.1)</b>	<b>12 (80.0)</b>
R1/Rx resection	14 (20.3)	2 (16.7)
Missing, n (%)	1 (0.9)	0 (0)

**Successful risk stratification in 134/135 (99.3%)**

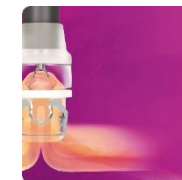
High-risk features for LNM are: poor differentiation, lymphovascular invasion, deep submucosal invasion (Sm 2-3) or tumor budding if assessed



## Curative resection

	Curative resection
<b>Overall, n (%)</b>	193/320 (60.3)
Only adenocarcinomas at histology	23/112 (20.5)
Excluding SM2-3 as risk factor	67/112 (59.8)
<b>Primary treatment overall, n (%)</b>	41/128 (32.0)
Only adenocarcinoma at histology	23/97 (23.7)
Excluding SM2-3 as risk factor	59/97 (60.8)
<b>Secondary treatment overall, n (%)</b>	152/192 (79.2)
Only adenocarcinoma at histology	0/15 (0)
Excluding SM2-3 as risk factor	8/15 (53.3)





## Additional surgery

	Overall (n=320)
<b>Additional surgery, n (%)</b>	<b>65 (20.3)</b>
R1/Rx eFTR resection, n (%)	20 (6.3)
One or more high-risk factors, n (%)	29 (9.1)
Residual cancer	11/49 (22.4)
Adverse events, n (%)	7 (2.2)
Other reasons for surgery, n (%)	9 (2.8)

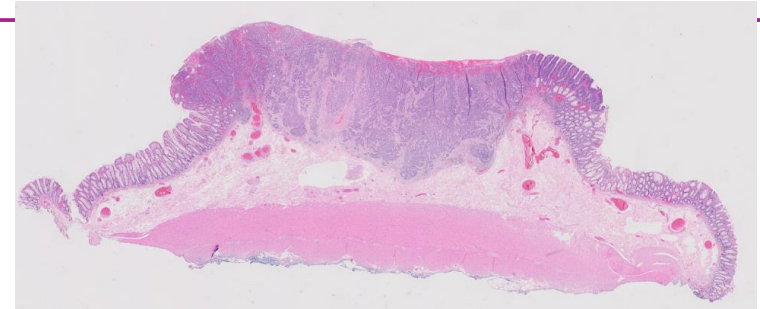


## Complications

	Overall (n=320)
Overall	26 (8.1)
<i>Mild adverse events, n (%)</i>	13 (4.1)
Perforations (2 immediate / 2 delayed)	4 (1.3)
Bleeding	5 (1.6)
Abdominal pain	3 (0.9)
Bladder retention	1 (0.3)
<i>Moderate adverse events, n (%)</i>	6 (1.9)
Bleeding	6 (1.9)
<i>Severe adverse events, n (%)</i>	7 (2.2)
Perforations (2 immediate / 5 delayed)	7 (2.2)



## Conclusion/take home



- eFTR for T1 CRC is feasible and relative safe
  - ✓ Technical succes: 87%
  - ✓ R0 resection: 85% (82% for primary lesions)
- Delivers optimal histology and risk stratification in **99%** cases
- Deep submucosal invasion is NOT a significant risk factor for LNM
- eFTR could change traditional treatment paradigms and reduce the overuse of surgery:
  - ✓ R0 resection in deep invasive cancers
  - ✓ Completion treatment after previous Rx/R1 resection low risk T1 CRC

**Long term oncological safety data needed !**



Thank you for your attention