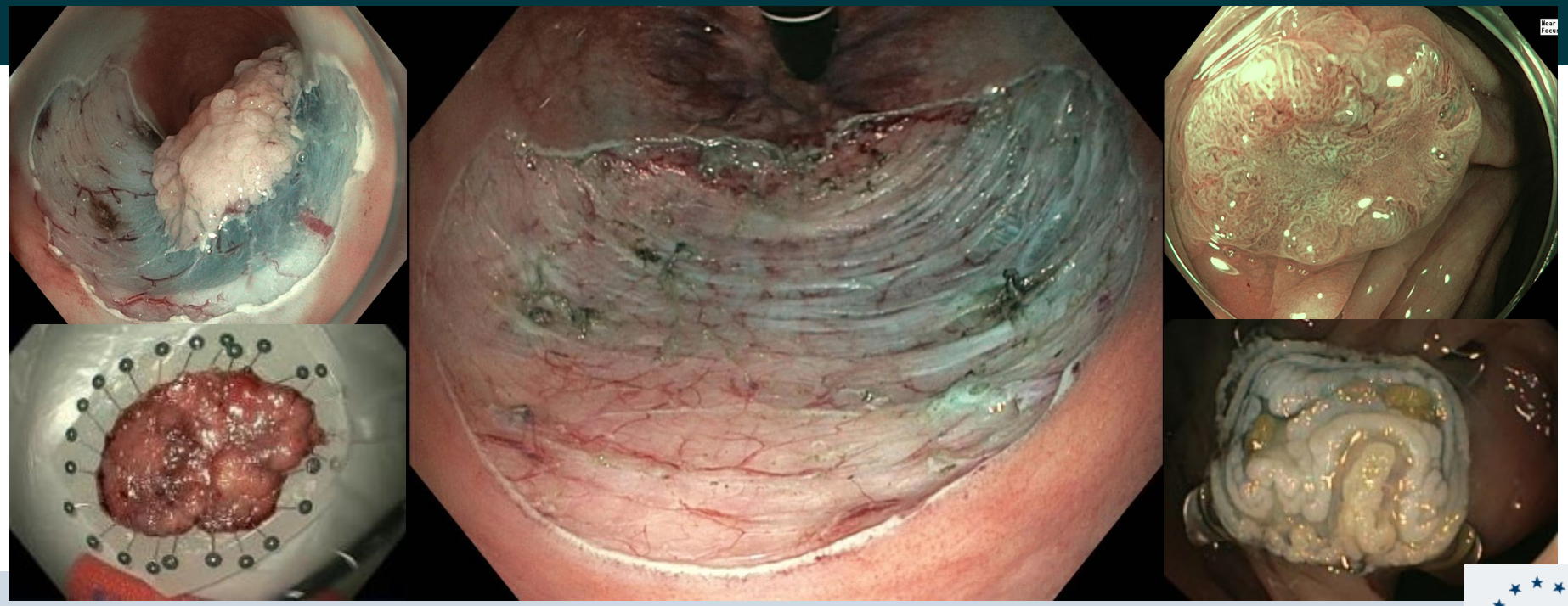
Amsterdam UMC
Universitair Medische Centra

Poliepen in de darm
Endoscopie vs Chirurgie

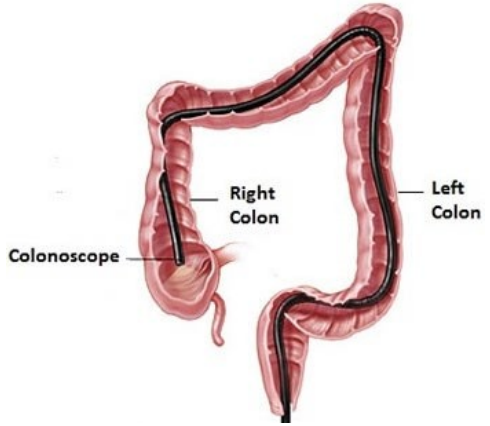
Barbara Bastiaansen

MDL arts



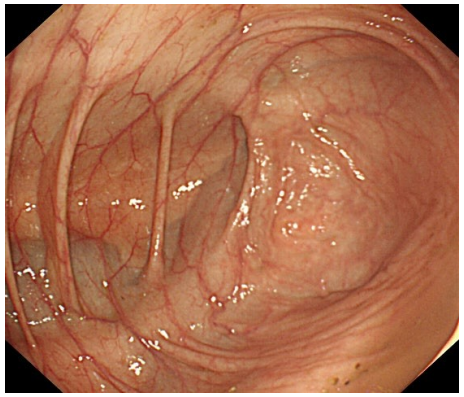
EPGS EUROPEAN POSTGRADUATE GASTRO-SURGICAL SCHOOL

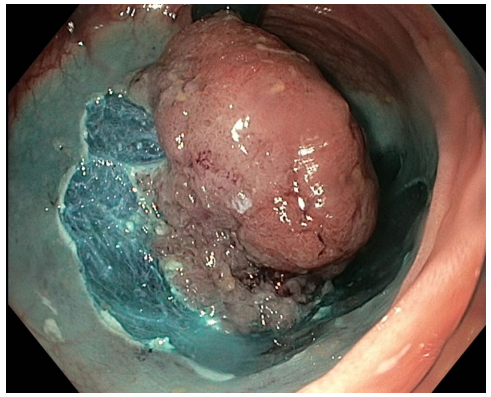
Coloscopie

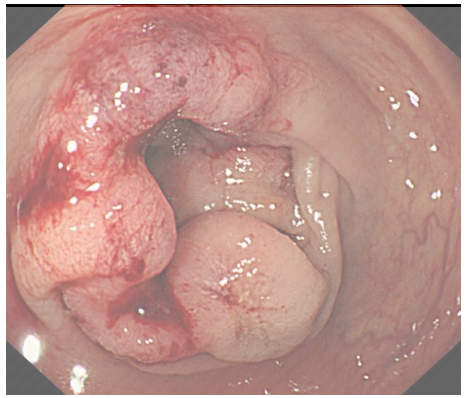


Gouden standaard voor detectie en resectie poliepen

Reduceert CRC gerelateerde mortaliteit[1]







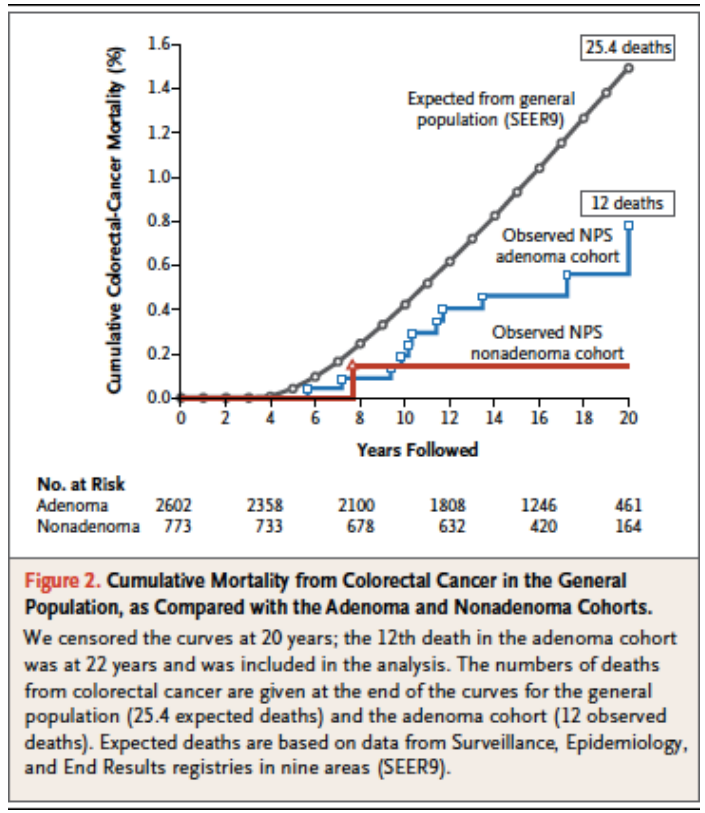


Figure 2. Cumulative Mortality from Colorectal Cancer in the General Population, as Compared with the Adenoma and Nonadenoma Cohorts.
We censored the curves at 20 years; the 12th death in the adenoma cohort was at 22 years and was included in the analysis. The numbers of deaths from colorectal cancer are given at the end of the curves for the general population (25.4 expected deaths) and the adenoma cohort (12 observed deaths). Expected deaths are based on data from Surveillance, Epidemiology, and End Results registries in nine areas (SEER9).

1. Zauber, NEJM 2012

- 1895 -

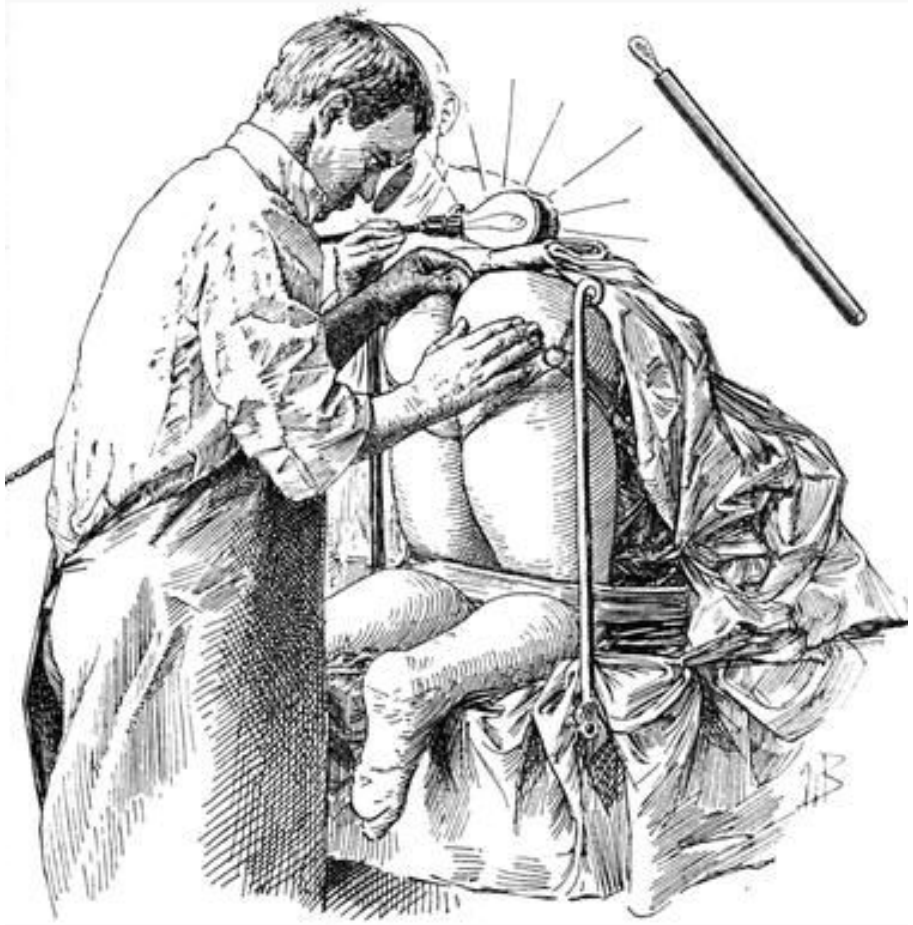
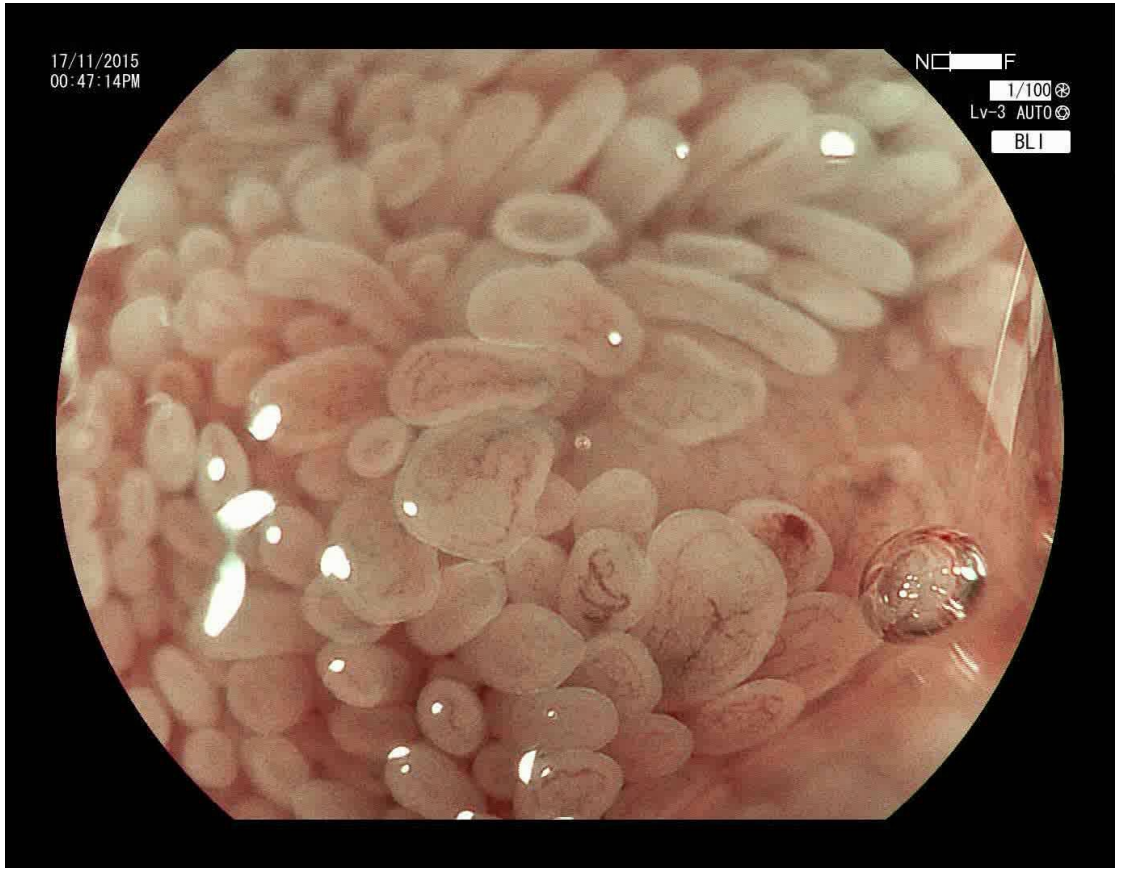


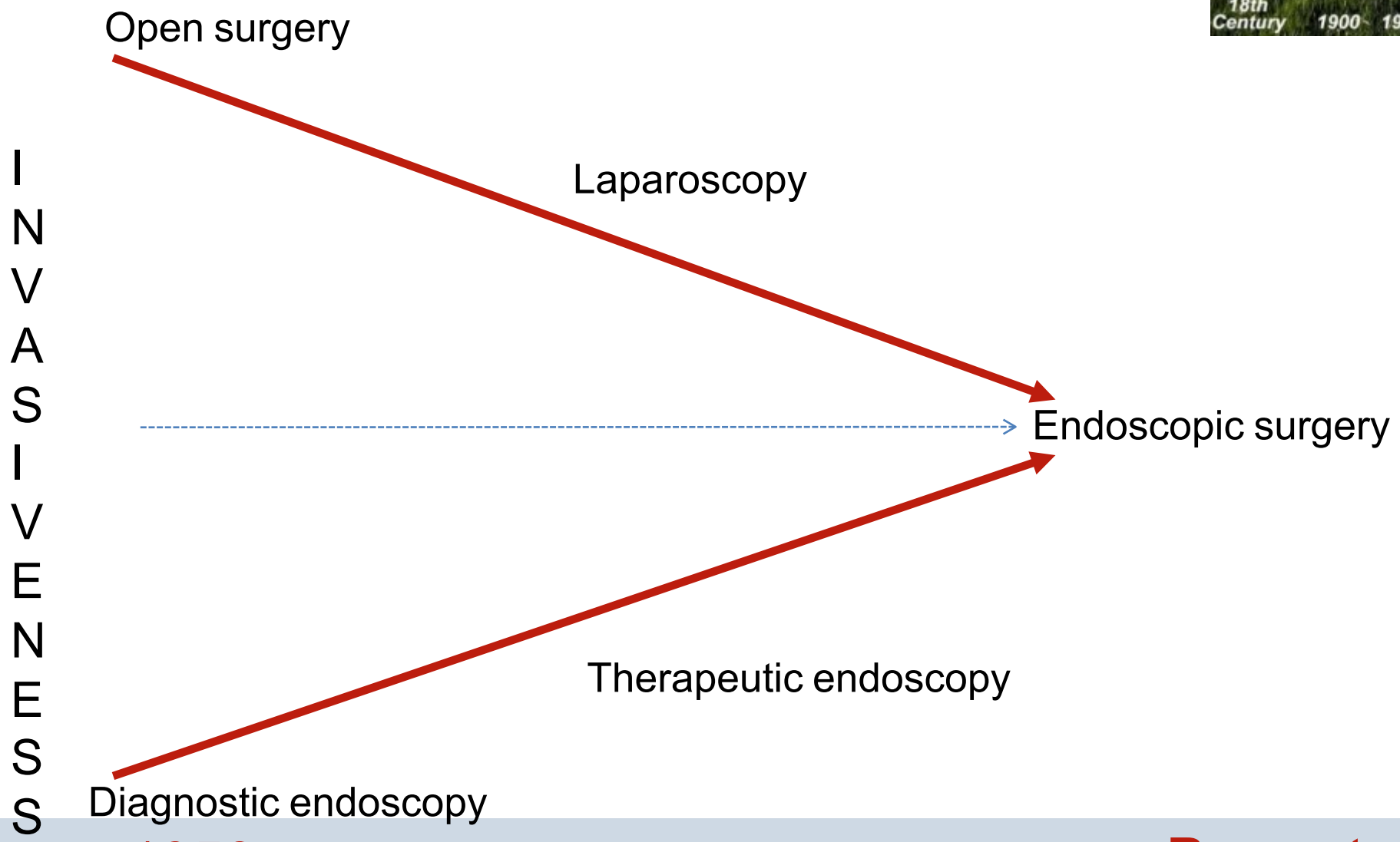
Fig. 3.
Howard Kelly described the first sigmoidoscopy in 1895. The technique of examination utilized an electric light placed close to the patient's sacrum, and the light reflected off the examiner's head mirror.

- 2021 -

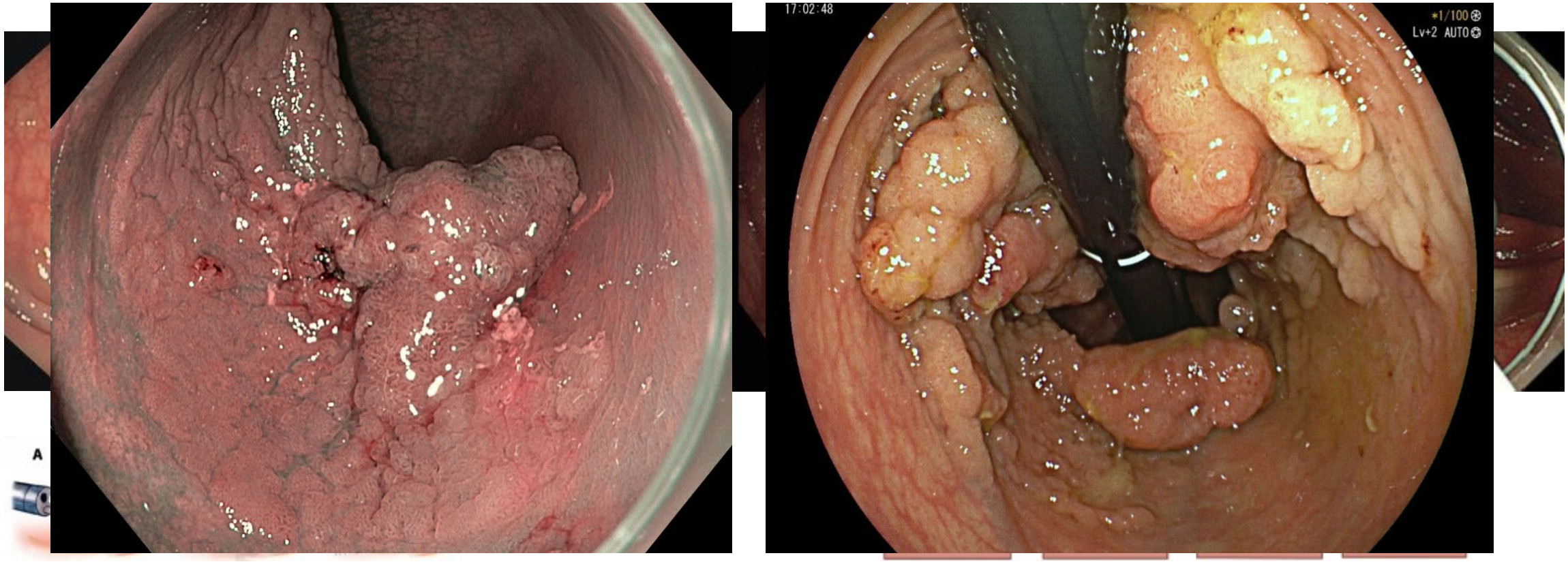


GE evolutie


18th Century
1900
1950
1970
1980
1990
2006

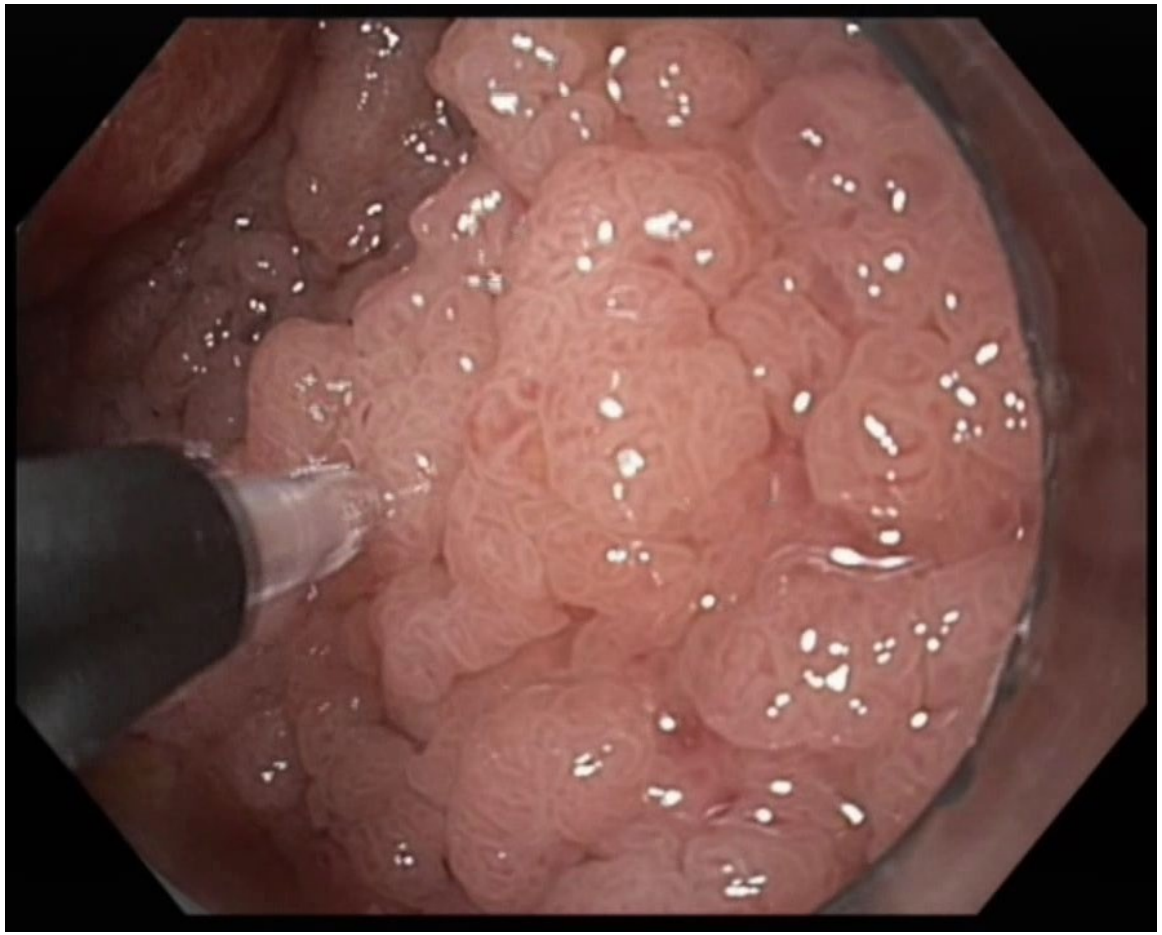

Open surgery
Laparoscopy
Endoscopic surgery
Therapeutic endoscopy
Diagnostic endoscopy
INVASIVENESS
1950
1980
Present

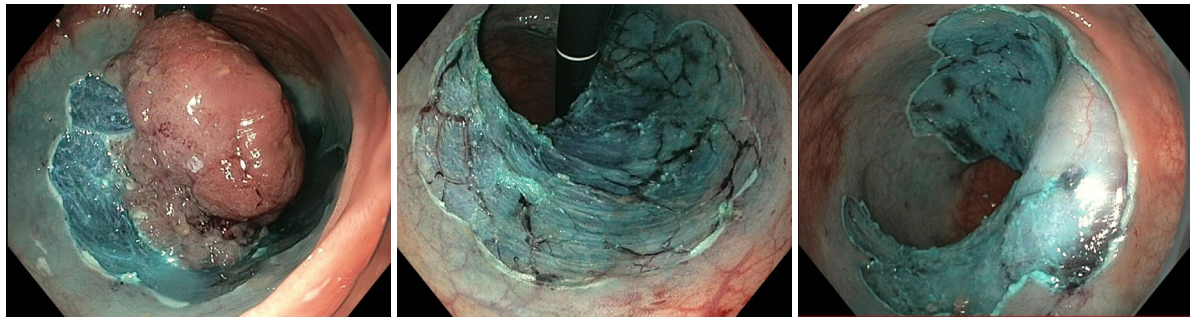
Reguliere poliepectomie



(piecemeal) Endoscopic Mucosal Resection

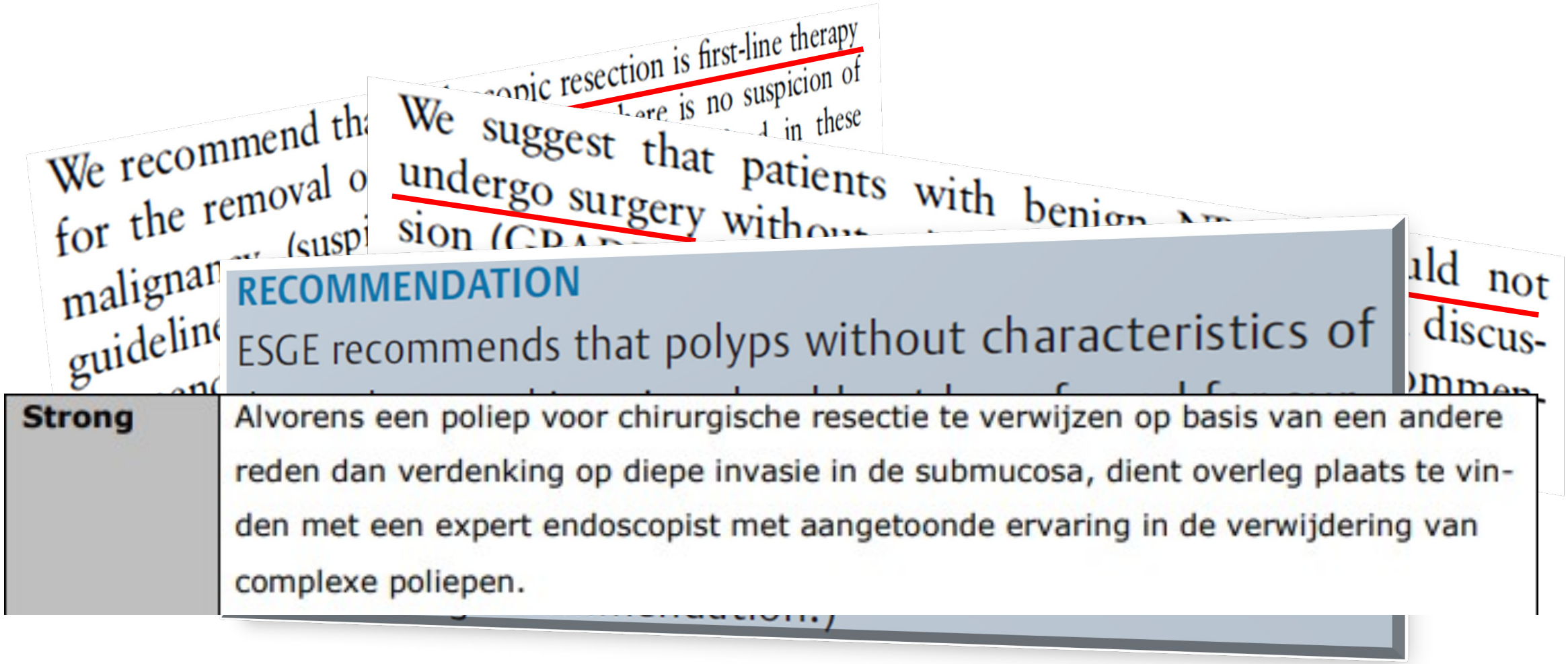
- ✓ Veilig (emergency surgery < 0.5%)
- ✓ Efficient (>92% technical/clin succes)
- ✓ Relatief goedkoop
- ✓ Relatief eenvoudig en snel
- ✓ Ook voor zeer grote (benigne) lesies





Moss Gastro 2011, Hassan Gut 2015,
Moss Gut 2014, Longcroft Dis Colon Rectum 2013

Endoscopische resectie voor complexe poliepen



Strong	Alvorens een poliep voor chirurgische resectie te verwijzen op basis van een andere reden dan verdenking op diepe invasie in de submucosa, dient overleg plaats te vinden met een expert endoscopist met aangetoonde ervaring in de verwijdering van complexe poliepen.

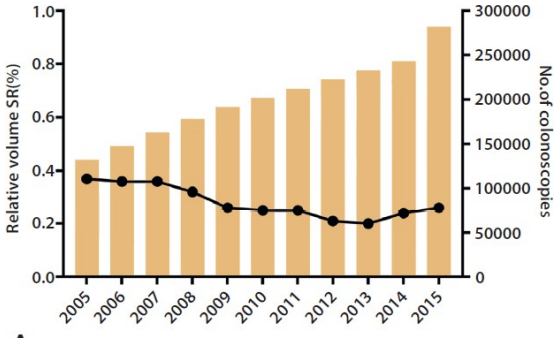
BSG Guideline Gut 2015
ESGE Guideline Endoscopy 2017

NVMDL Richtlijn poliepectomie van het colon 2019

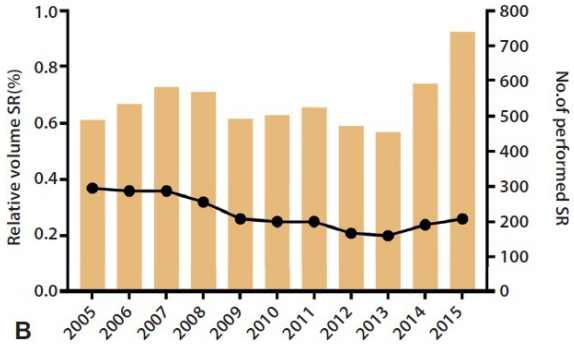
Chirurgie voor benigne colonpoliepen

Volume of surgery for benign colorectal polyps in the last 11 years

Maxime E. S. Bronzwaer, MD,[1] Lianne Koens, MD, PhD,[2] Willem A. Bemelman, MD, PhD,[3] Evelien Dekker, MD, PhD,[1] Paul Fockens, MD, PhD[1]; on behalf of the COPOS study group



- Absoluut en relatief volume voor benigne chirurgie **stabiel** 2005-2015:
- > 80% geen poging tot endoscopische resectie
- 2,4% werd verwezen naar gespecialiseerd centrum
- Mortaliteit gemiddeld 1,4%
- Morbiditeit 35 %



Chirurgie voor benigne colonpoliepen

The impact of the national bowel screening program in the Netherlands on detection and treatment of endoscopically unresectable benign polyps

C. C. M. Marres[1] · C. J. Buskens[2] · E. Schriever[1] · P. C. M. Verbeek[1] · M. W. Mundt[3] · W. A. Bemelman[2] · A. W. H. van de Ven[1,2]

- Drievoudige toename chirurgische resecties voor benigne colonpoliepen na invoering BVO

Table 3 Perioperative complications

Complications	*N* (%)
Perioperative death	2 (2.6)
Complication Clavien–Dindo > 3b	9 (11.8)
Complication Clavien–Dindo < 3b	16 (21.0)
Anastomotic leak	3 (3.9)
Conversion	3 (3.9)
Total	76 (100)

Techniques in Coloproctology (2017) 21:887–891

POLIEP
ADVIES

PANEL VOOR COMPLEXE POLIEPEN IN NOORD-HOLLAND

Online tool voor advies t.a.v. behandeling complexe poliepen en vroegcarcinomen via www.poliepadvies.nl

Feedback binnen 5 werkdagen vanuit panel bestaande uit 14 MDL-artsen regio Noord-Holland & Flevoland

Voor meer informatie:

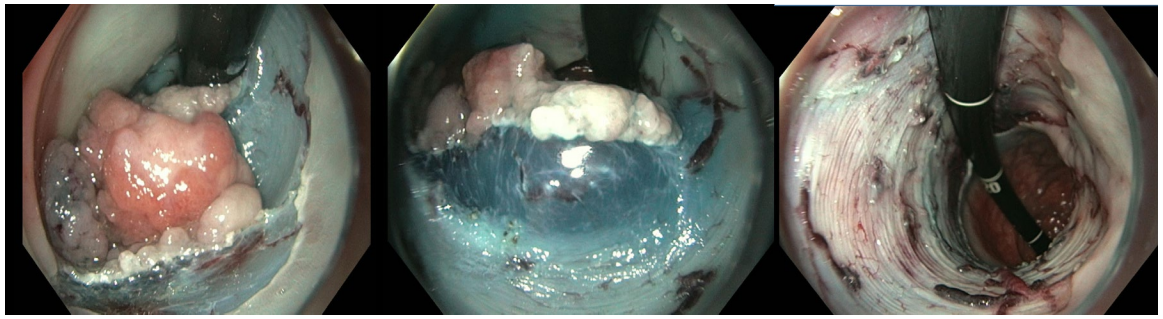
www.poliepadvies.nl

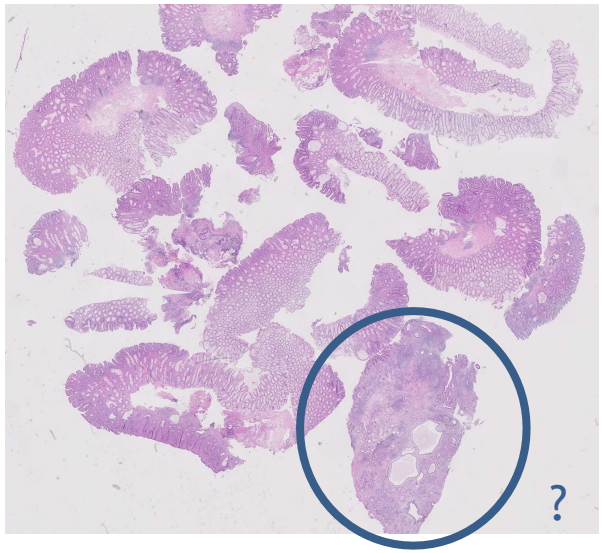
poliepadvies@amsterdamumc.nl

(piecemeal) Endoscopische Mucosale Resectie

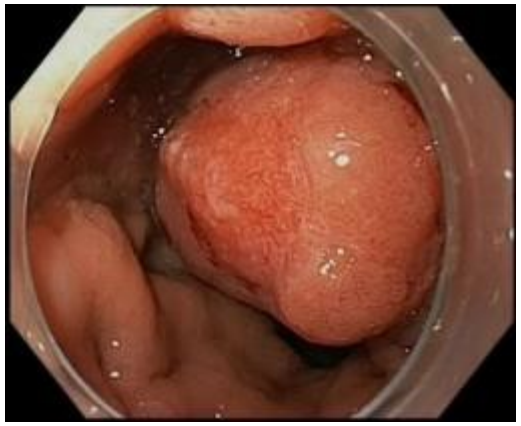
- ✓ Veilig (emergency surgery < 0.5%)
- ✓ Efficient (>92% technical/clin succes)
- ✓ Relatief goedkoop
- ✓ Relatief eenvoudig en snel
- ✓ Ook voor zeer grote (benigne) lesies

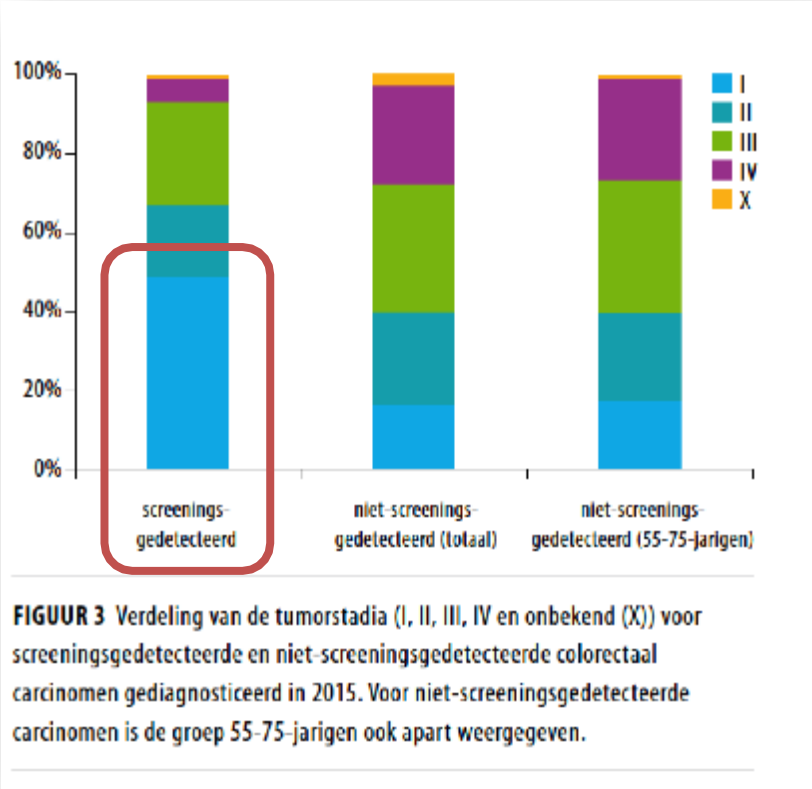
- x Kans op recidief 16%
- x Onverwacht maligniteit 7%
- x Inadequate histologie
- x Non curatief in T1CRC !!





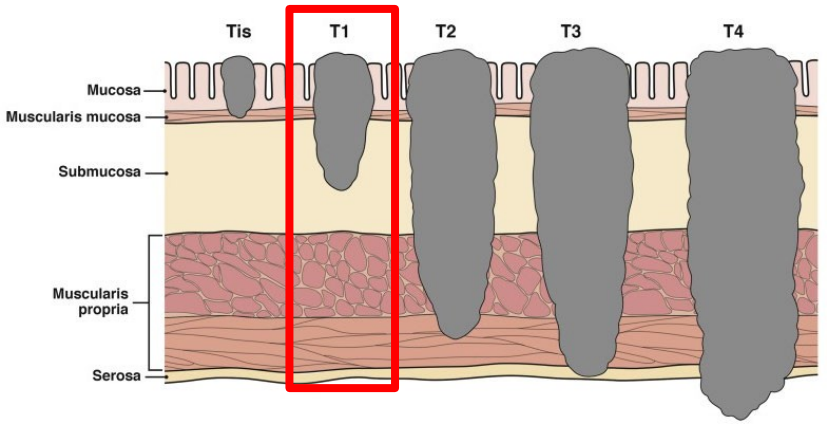
Vroegcarcinoom- T1 CRC





FIGUUR 3 Verdeling van de tumorstadia (I, II, III, IV en onbekend (X)) voor screeningsgedetecteerde en niet-screeningsgedetecteerde colorectaal carcinomen gediagnosticeerd in 2015. Voor niet-screeningsgedetecteerde carcinomen is de groep 55-75-jarigen ook apart weergegeven.

- 30-40% van alle CRC's gevonden in BVO is een T1CRC
- Invasie tot in submucosa
- Overall risico op LNM ~ 8%
- Potentieel endoscopisch/locaal te behandelen



Elferink NTVG 2018
Toes Zoutendijk et al Gut 2017

Lokale/endoscopische behandeling volstaat bij laag risico T1 CRC

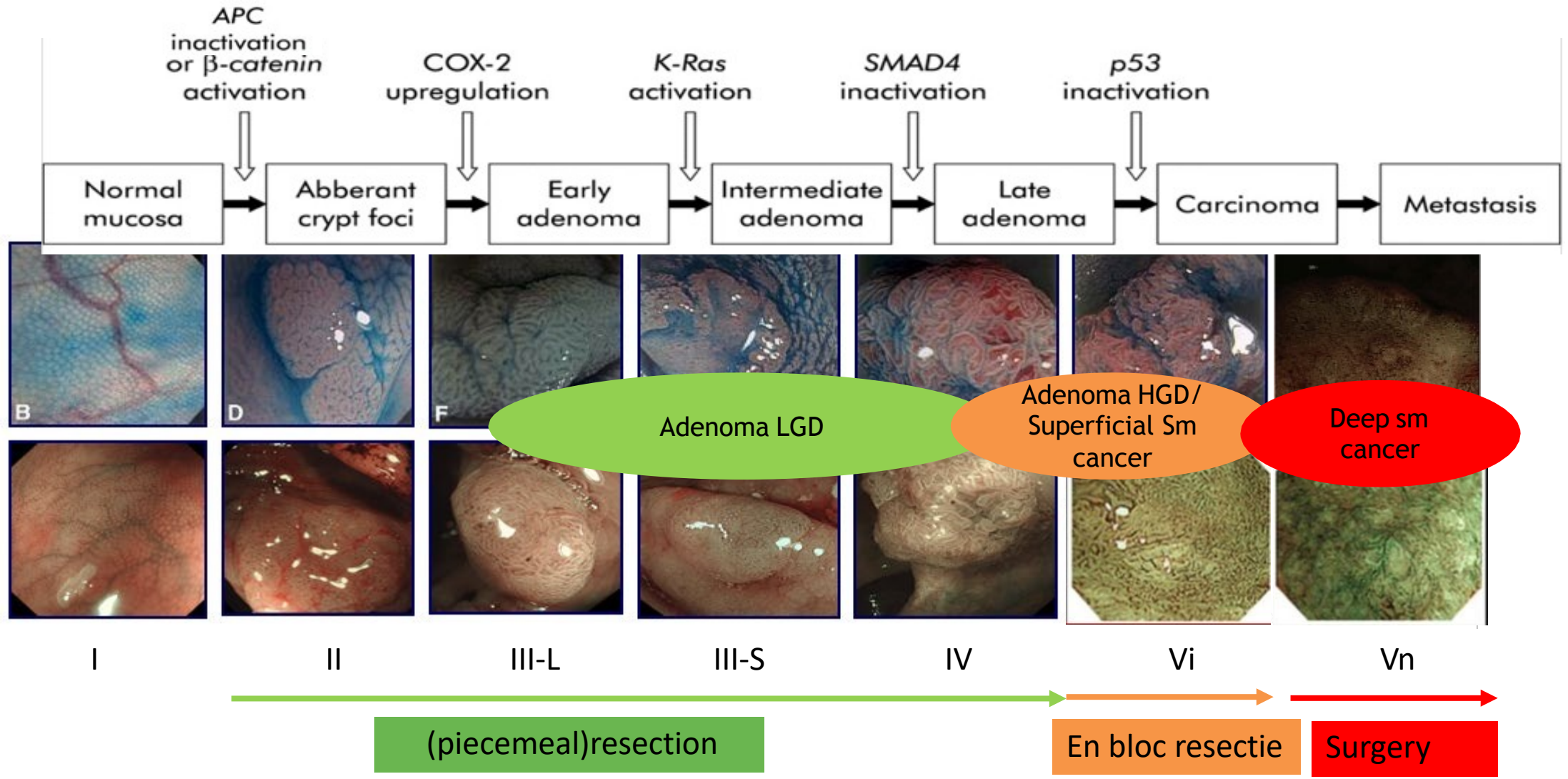
- Radicaliteit → ***en bloc*** **R0** resectie met marge ≥ 1 mm
- Afwezigheid hoog risico kenmerken:
  - ✓ Diepe submucosale invasie (i.e. ≥ 1000um, Sm2-3 or Haggitt 4)
  - ✓ Lymfovasculaire invasie (LVI)
  - ✓ Slechte tumor-differentiatie

Z
F

Endoscopische herkenning is belangrijk!

IKNL Oncoline, CBO richtlijn CRC

Optische diagnose- Kudo classificatie

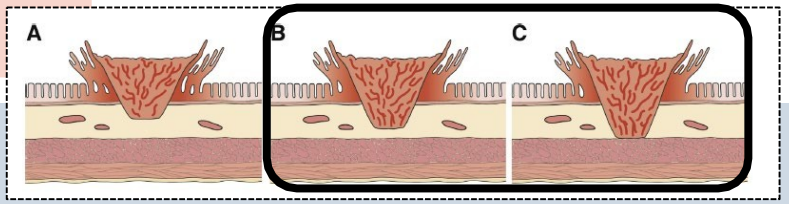


Invasiediepte is zwakke voorspeller voor LNM in T1

- Risico op LNM bij alleen diepe submucosale invasie is **1 - 2 %** [1-5]

Study, year		N	Risk for LNM
Suh	2012	118	2 (1,7 %)
Nakadoi	2012	249	3 (1,2 %)
Yasue	2019	258	4 (1,6 %)

Warning! Nauwkeurige histologische beoordeling noodzakelijk



Rectum is hoog risico voor maligniteit

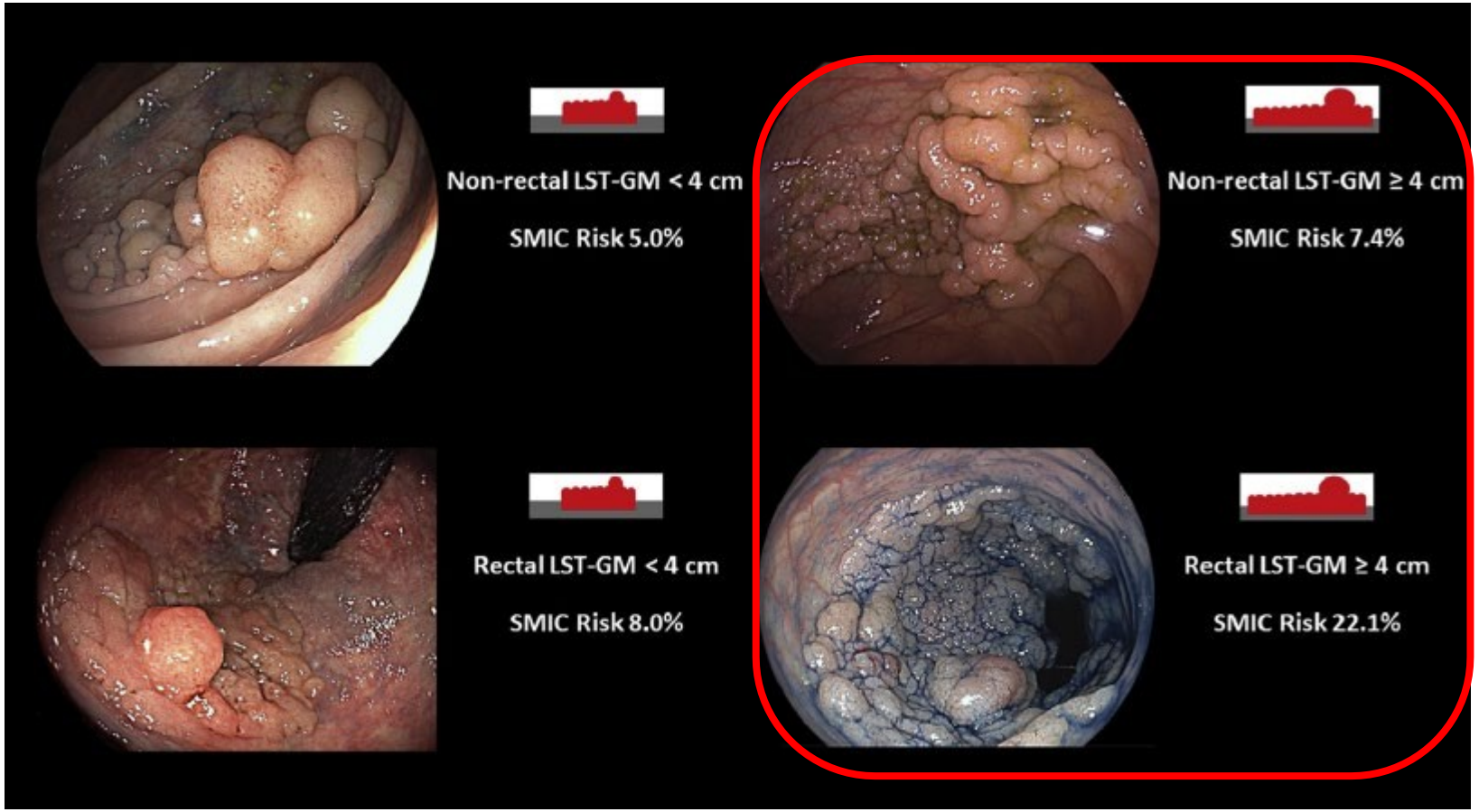
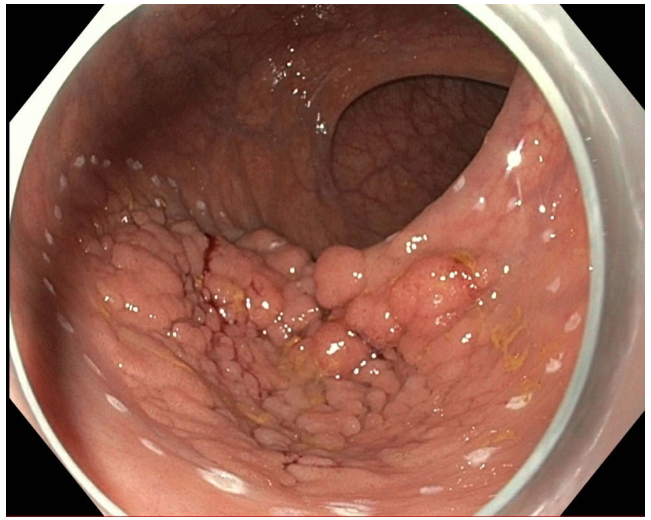
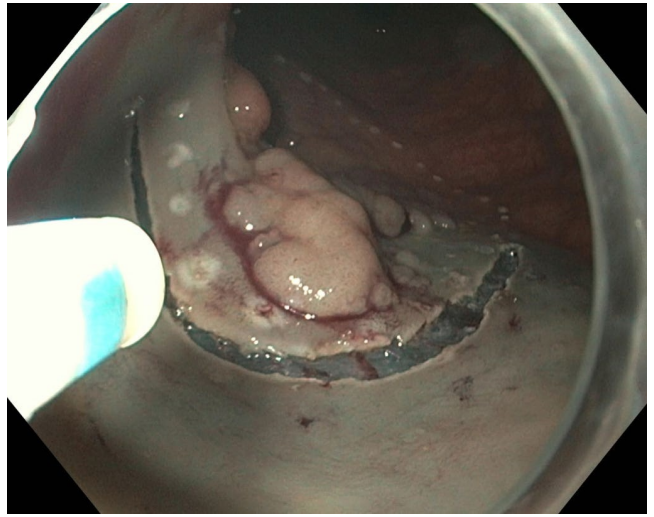
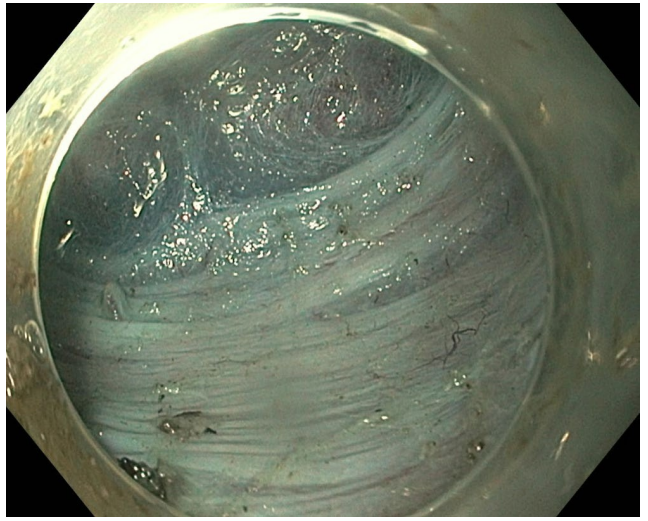
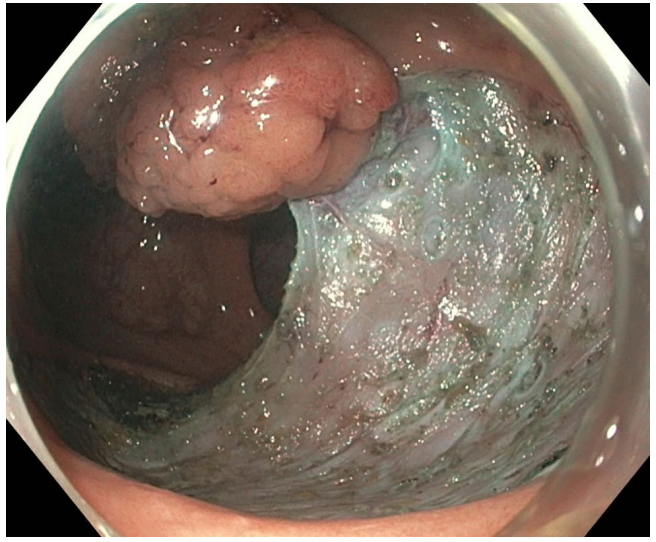
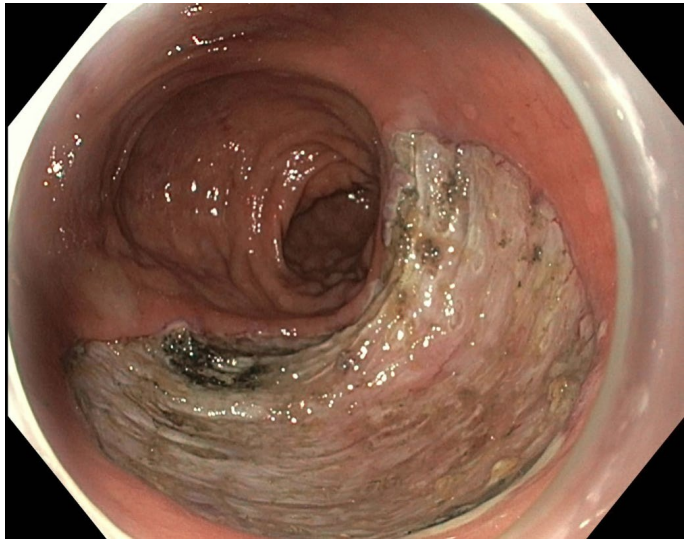
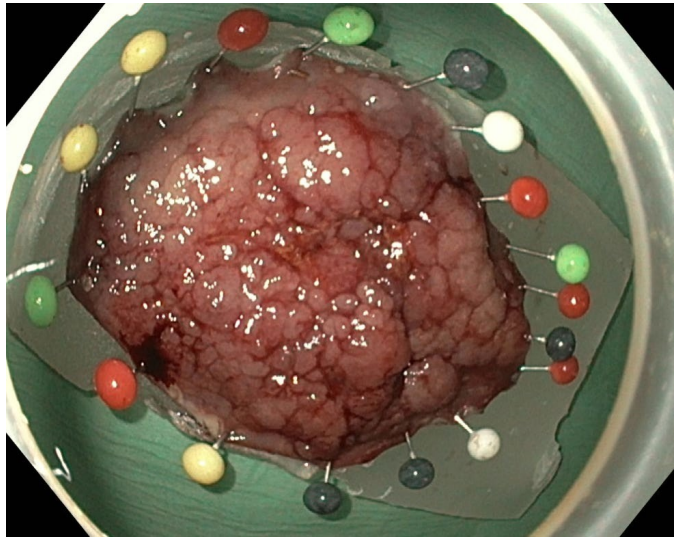


Table 3. Results of the Multivariate Analysis for Detection of Covert SMIC in GM-LSTs

Variable	Adjusted Odds Ratio (95% CI)[a]	*P* Value
Sex		
Male[b]	1.00	.92
Female	0.98 (0.58–1.65)	
Age, years	0.99 (0.97–1.01)	.23
Lesion size, mm[c]	1.02 (1.01–1.03)	.003
Colonic location of the lesion[c]		
Right colon[b]	1.00	.004
Transverse colon	1.64 (0.51–5.21)	
Left colon	1.83 (0.67–4.99)	
Rectum	3.08 (1.62–5.83)	

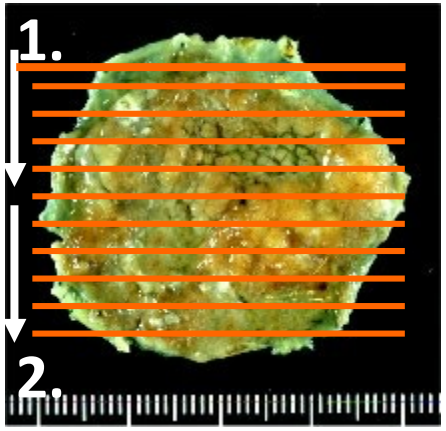
F. D'Amico, Clinical Gastroenterology and Hepatology 2020

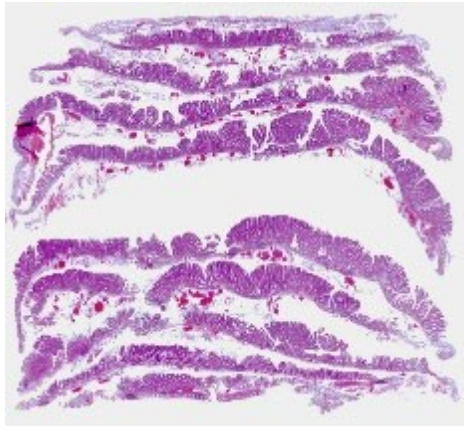
Endoscopische Submucosale Dissectie (ESD)

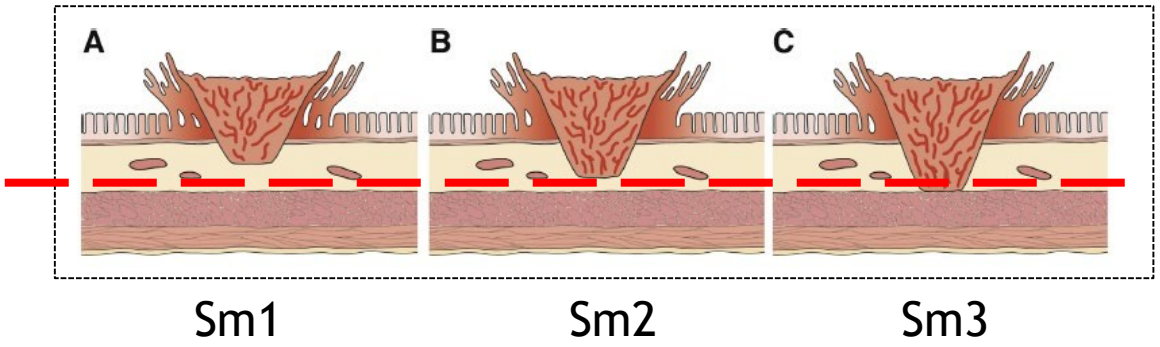
ESD

- ✓ Goede histologische beoordeling
- ✓ Laag recidief 1-2%
- ✓ Curatief voor laag risico T1 CRC
- ✓ En bloc resectie voor poliepen > 2 cm

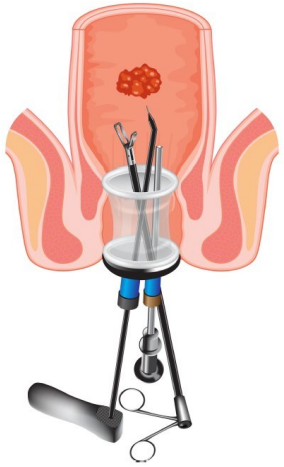




- x Technisch lastig
- x Lange procedures/duurder dan EMR
- x Meer complicaties dan EMR
- x Weinig ESD experts
- x Alleen geschikt voor oppervlakkige submucosale invasie (T1 Sm1)



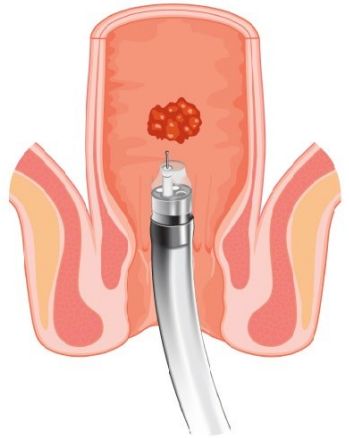
TAMIS



- ✓ High R0 rates > 95%
- ✓ Largely available
- x Expensive
- ✓ Quick
- x Higher recurrence?
- x General anesthesia/complications

vs

ESD



- ✓ High R0 rates > 95%
- x Lack of ESD centers
- ✓ Relative cheap
- x Time consuming
- ✓ Low recurrence rates
- ✓ Deep sedation/ Less complications

TAMIS vs ESD voor grote rectumpoliepen/T1Sm1

Multicentre, randomised controlled trial comparing **TR**ansanal minimal **I**nv**A**sive **S**urgery (TAMIS) and endoscopic **S**ubmucosal d**I**sse**C**tion (ESD) for resection of non-pedunculated rectal lesions

ZonMw

Leids Universitair Medisch Centrum

ijsselland ziekenhuis

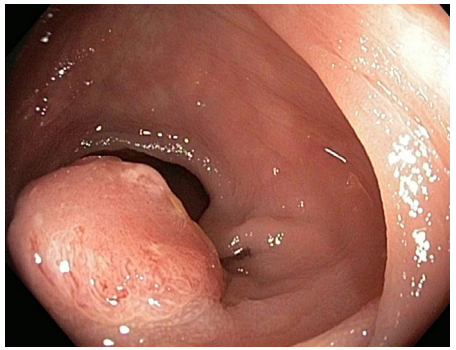
Suboptimale herkenning van T1 CRC

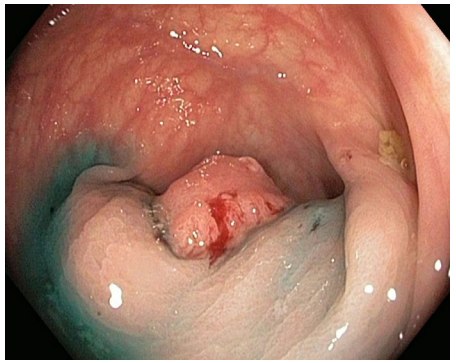
Suboptimal endoscopic cancer recognition in colorectal lesions in a national bowel screening programme

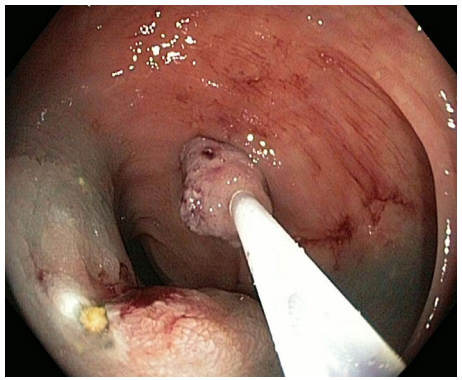
LETTER

Optical diagnosis of T1 CRCs and treatment consequences in the Dutch CRC screening programme

- Tussen de 60-80% van alle T1 CRC niet goed vooraf herkend
- Hierdoor inadequate resectietechniek toegepast (zoals pEMR)
- Ca 44% mist hiermee kans tot endoscopische curatie







Jasper LA Vleugels et al, Gut 2019 ;
Lonne W T Meulen, Gut 2020

Dilemma in T1 CRC

Endoscopie

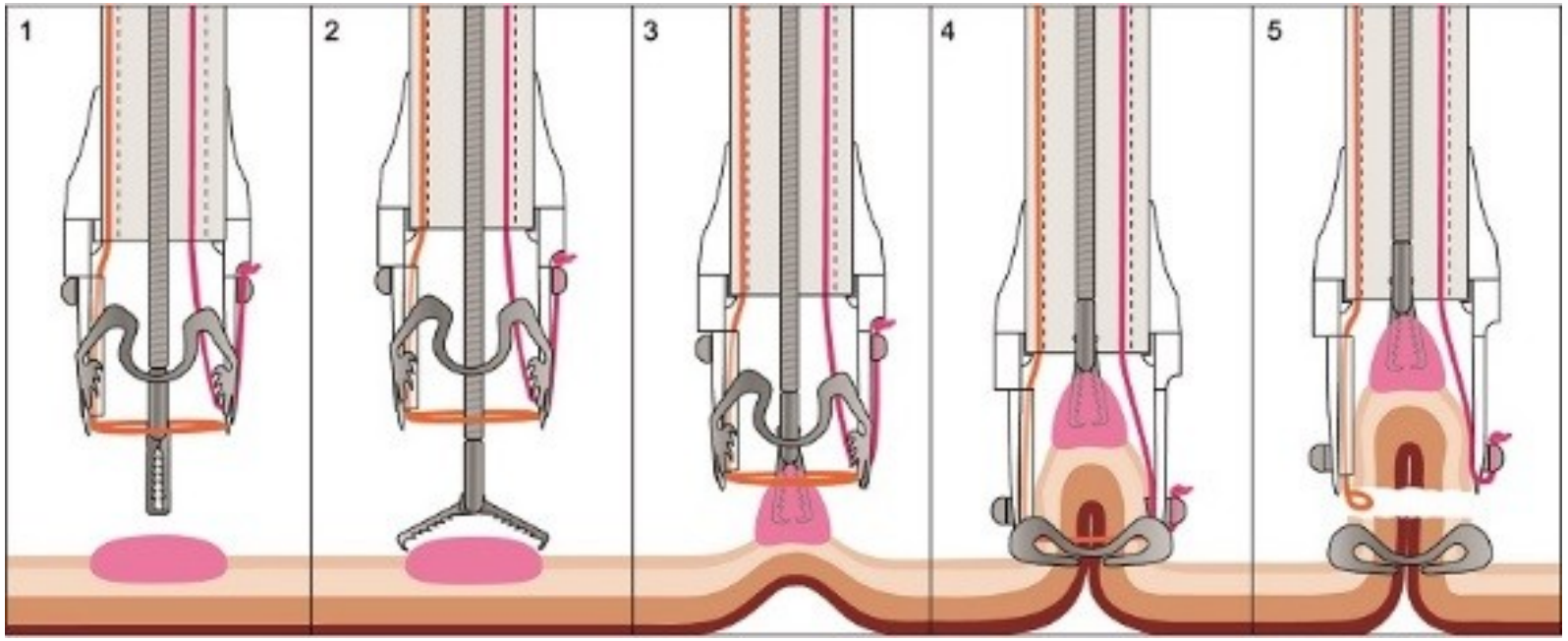
- ✓ Locoregionaal recurrence
- ✓ Lymphatic spread
- ✓ Cancer related death

Chirurgie

- ✓ Morbidity
- ✓ Mortality
- ✓ Functional loss

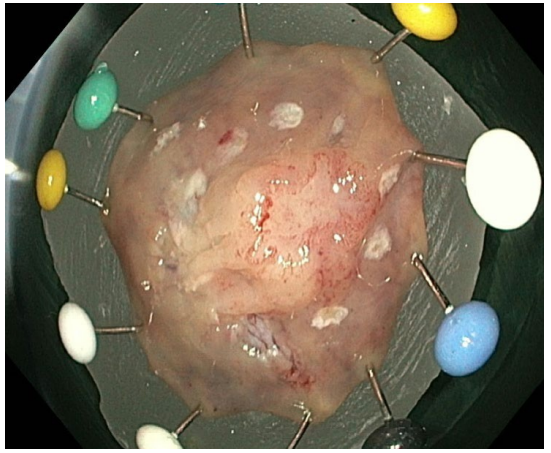
~ 90% chirurgische overbehandeling !

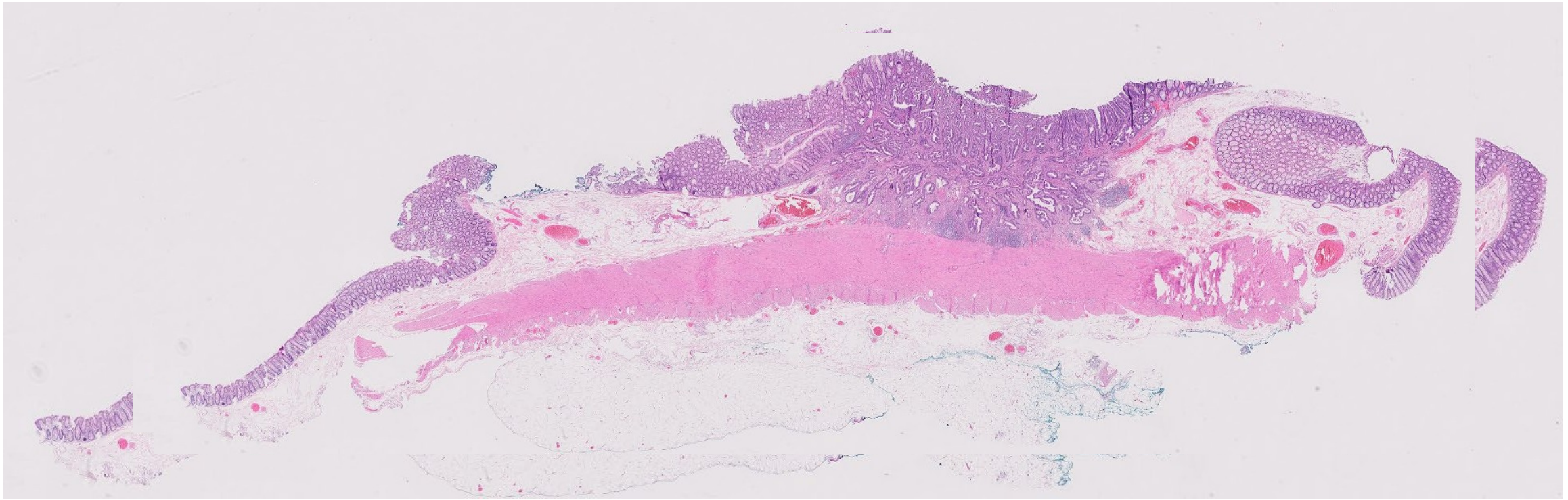
Endoscopische full thickness resection (eFTR)



Expanding the horizons..

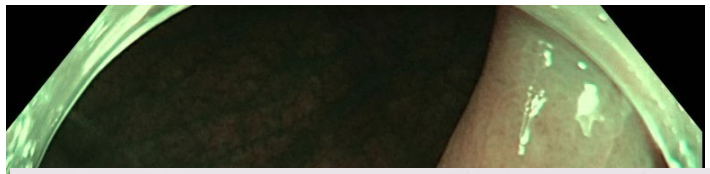
Histopathologie

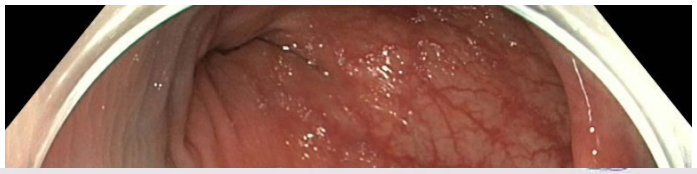


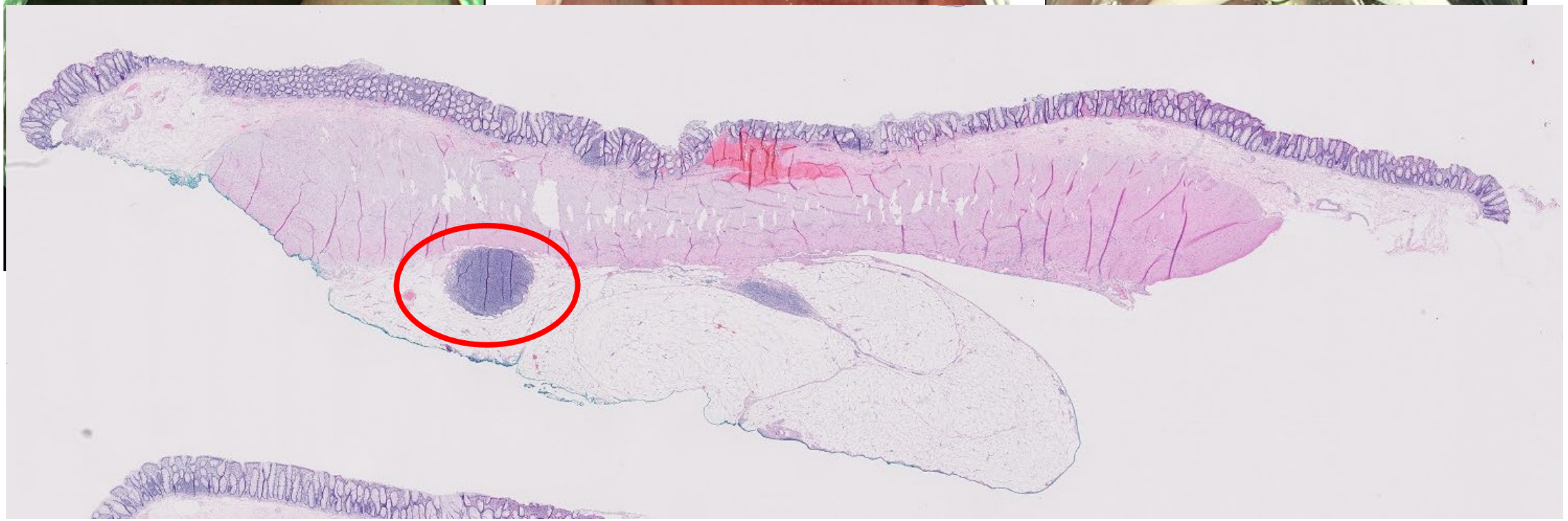


Courtesy Dr. Lianne Koens, pathologist
Amsterdam UMC

Aanvullende littekenresectie na Rx/R1 resectie

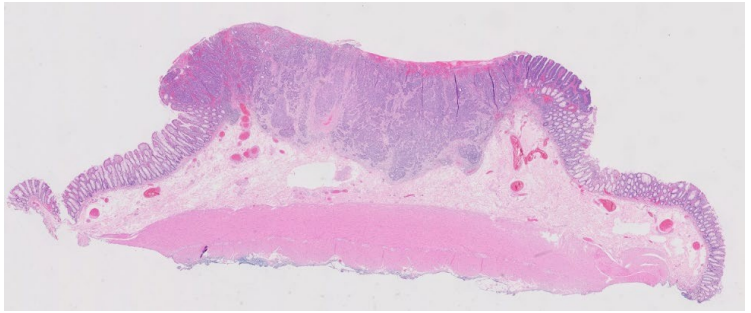




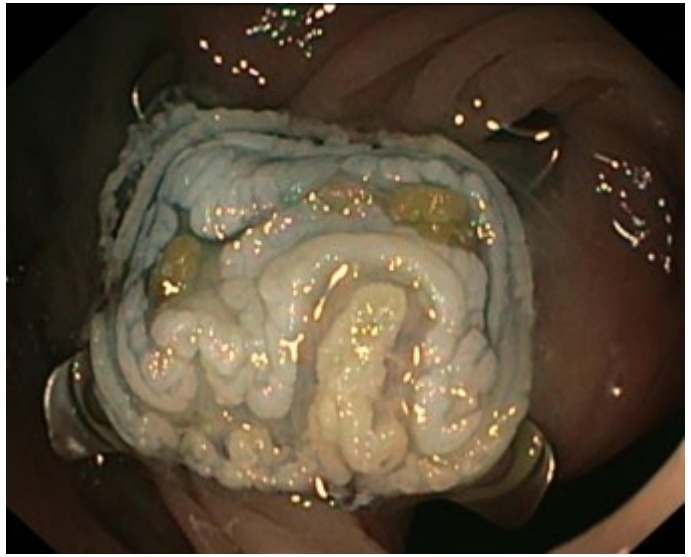


eFTR

- ✓ Optimale histologische beoordeling
- ✓ Relatief hoog R0 percentage > 80%
- ✓ Veilige transmurale resectie
- ✓ Biedt kansen:
  - ✓ R0 bij diepere submucosale invasie
  - ✓ littekenresectie na eerder mogelijk incomplete resectie laag risico T1

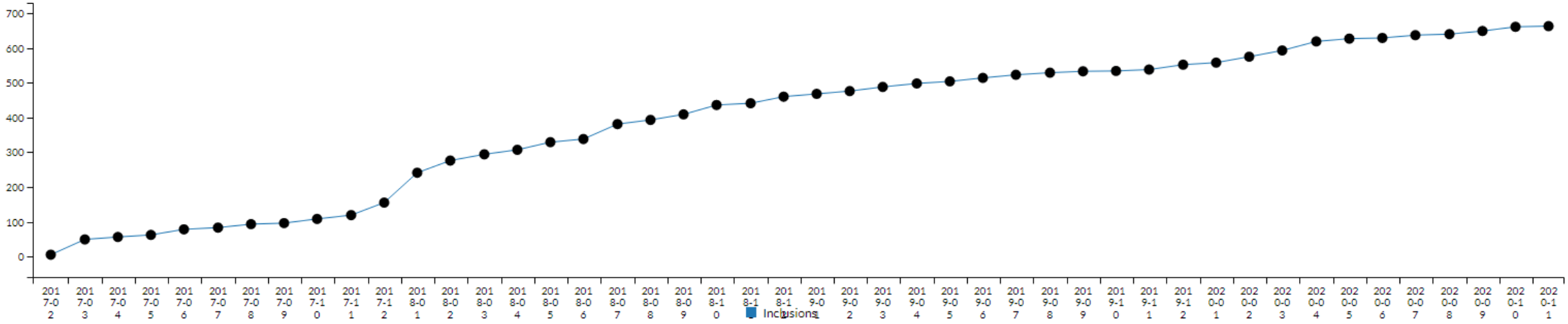


- x Alleen kleine lesies geschikt < 2 cm
- x Kans op late perforatie 1,2 %
- x Relatief nieuwe techniek, wachten op lange termijnsuitkomsten



Dutch eFTR registry

- 29 centers
- ~ 700 patients



2016

2020

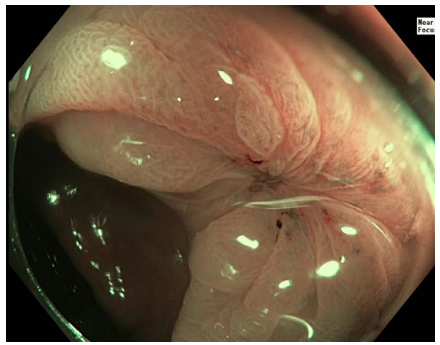
Thieme

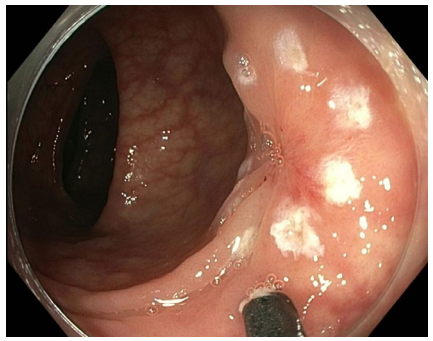
Endoscopic full-thickness resection (eFTR) of colorectal lesions: results from the Dutch colorectal eFTR registry

	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[1]	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[2]				
▪ 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)

Liselotte W. Zwager et al, Endoscopy 2020

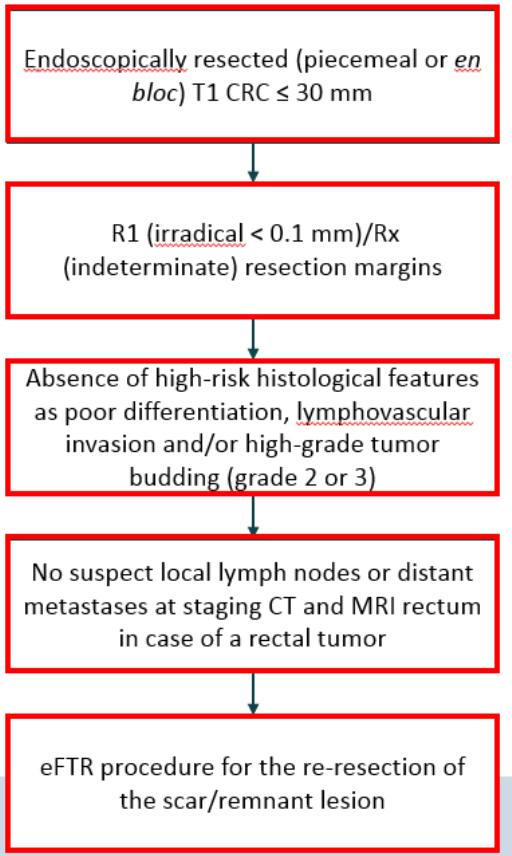
LOCAL study





"**Lo**ng-term oncological out**c**omes of eFTR **a**fter previous incomplete resection of **l**ow-risk T1 CRC"

- Doel: Oncologische veiligheid vaststellen van aanvullende littekenresectie met eFTR na eerdere incomplete resectie van laag risico T1 CRC
- Prospectieve Nederlandse multicenter cohort-studie
- 5 jaar intensieve follow up
- Voor aanvullende vragen: l.w.zwager@amsterdamumc.nl



Take home

- Endoscopie is gouden standaard voor > 90% van alle grote benigne colonpoliepen
- Regionale netwerken van belang voor optimale behandeling: Poliepadvies.nl
- Bij verdenking op T1 CRC is radicale en bloc resectie key

  -> in eerste instantie altijd diagnostisch!
- Locatie in rectum is hoog risico op onverwacht T1 → en bloc ESD/TAMIS
- eFTR vergoot het endoscopisch bereik:
  - Diagnostische/therapeutische resectie T1 CRC < 2 cm
  - Optimale histologie
  - Aanvullende littekenresectie na incomplete resectie T1 CRC
- Weeg risico's en benefits altijd af op MDO en samen met de patiënt