

# **Maligner Polyp**

## **The Battle: Transanal mikroskopisch vs. Endoskopische Tumorsektion**

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# What are the real questions ?

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1. Local resection or surgery (TME)?
2. Staging ? Invasive cancer ? Lymphnodes ?
3. Tumor size, Position of the tumor?
4. Full thickness resection or submucosal dissection?
5. In-toto (R0) resection or piecemeal resection ?

## Outcome:

- Postinterventional Function (Strictures)
- Local recurrence
- Metastasis
- Morbidity-Mortality
- Acceptance

Costs

# Staging: MRI or EUS ?

- T2 and T3: EUS and MRI similar
- T1: EUS better
- T4: MRI better

Fernández-Esparrach *Gastrointest Endosc* 2011;74:347-54

**TABLE 3. Positive and negative predictive values obtained by EUS and MRI in estimating T stage in rectal tumors**

	T1		T2		T3		T4	
	PPV, % (95% CI)	NPV, % (95% CI)	PPV, % (95% CI)	NPV, % (95% CI)	PPV, % (95% CI)	NPV, % (95% CI)	PPV, % (95% CI)	NPV, % (95% CI)
EUS	73 (39-94)	99 (93-100)	52 (28-74)	83 (72-91)	77 (63-87)	73 (54-88)	0 (NP)	95 (88-99)
MRI	0 (NP)	90 (81-95)	50 (31-69)	91 (81-97)	90 (78-97)	74 (57-87)	50 (16-84)	100 (80-100)

PPV, Positive predictive value; CI, confidence interval; NPV, negative predictive value; MRI, magnetic resonance imaging; NP, not possible because at least 1 variable in each 2-way table on which measures of association are computed is a constant.

# Staging: MRI or EUS ?

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- T2 and T3: EUS and MRI similar
- T1: EUS better
- T4: MRI better
- N +: MRI besser

## Li et al. Colorectal Disease 2015 17, 0129–0135: Meta-analyse

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MRI:	24 studies	Sens: 0.77 (0.67, 0.84)	Spec: 0.76 (0.68, 0.83)
EUS:	24 studies	Sens: 0.57 (0.48, 0.65)	Spec: 0.80 (0.73, 0.86)
CT :	5 studies	Sens: 0.79 (0.51, 0.93)	Spec: 0.76 (0.74, 0.87)

# rectal LN: malignant?

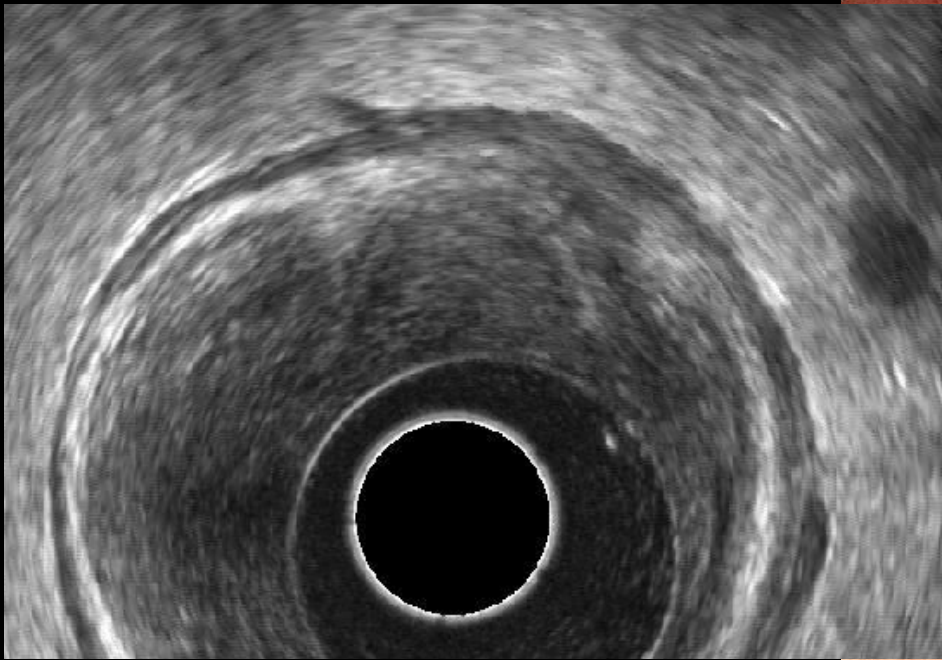
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*Langman Dis Colon Rectum 2015, 58:406*

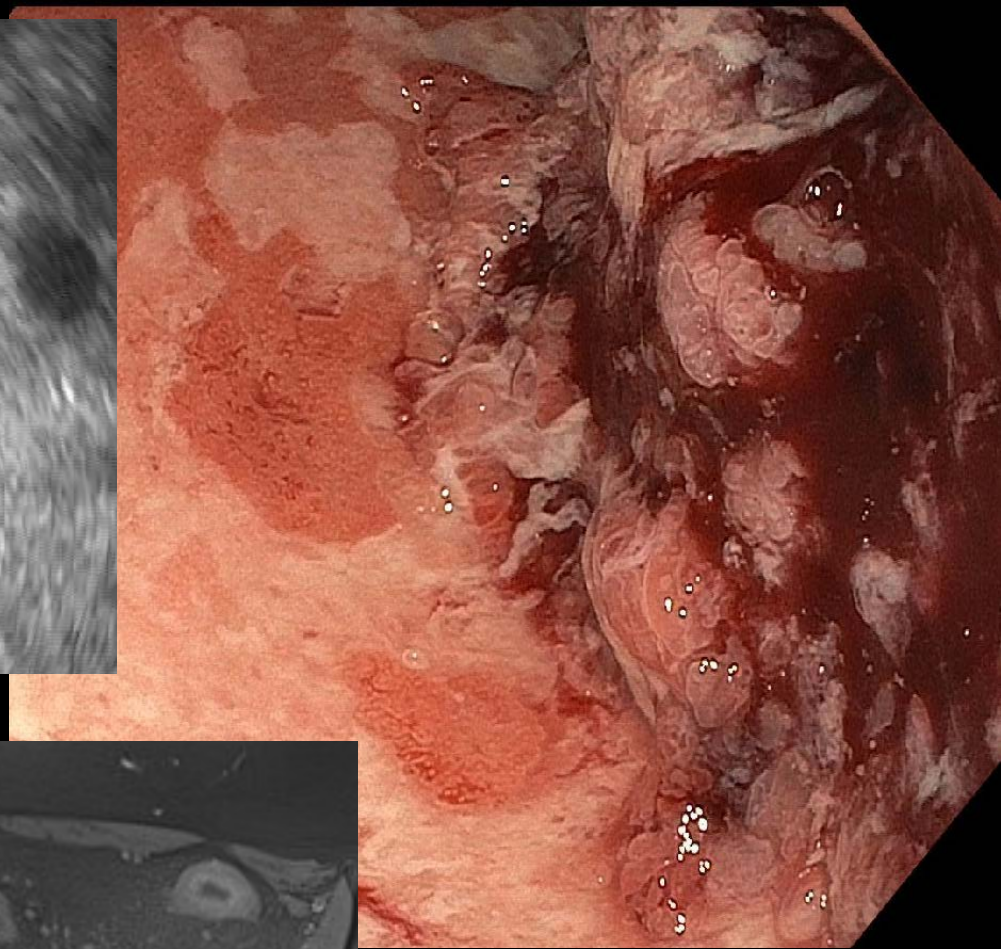
244 patients with rectal cancer (50% T1-T2)  
10,473 lymph nodes

<i>Parameter</i>	<i>Positive LNs</i>	<i>Negative LNs</i>	<i>Percentage of LNs that are positive</i>
Total number of LN	334	10,139	3.30
Overall median diameter, mm	3.92	2.20	–
Interquartile range, mm	2.71–5.41	1.50–3.12	–
Number of LN according to LN diameter			
<3 mm	95	7355	1.29
3–5 mm	140	2224	6.29
>5 mm	99	560	17.7

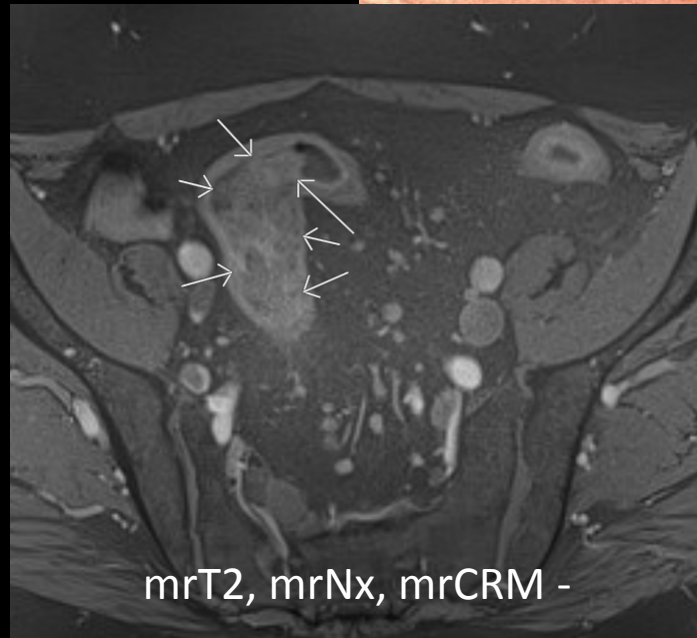
LN = lymph node.



EUS: T2N2

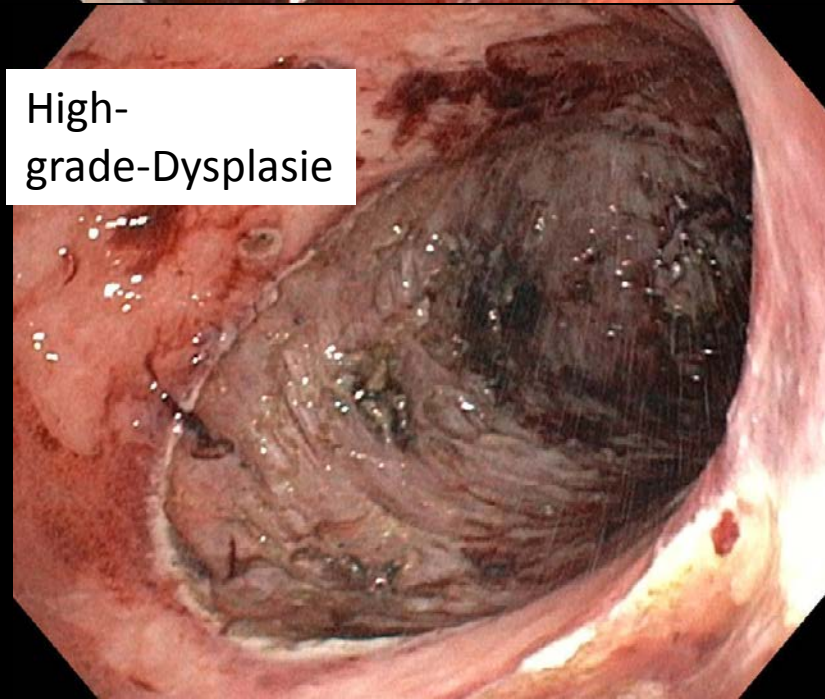
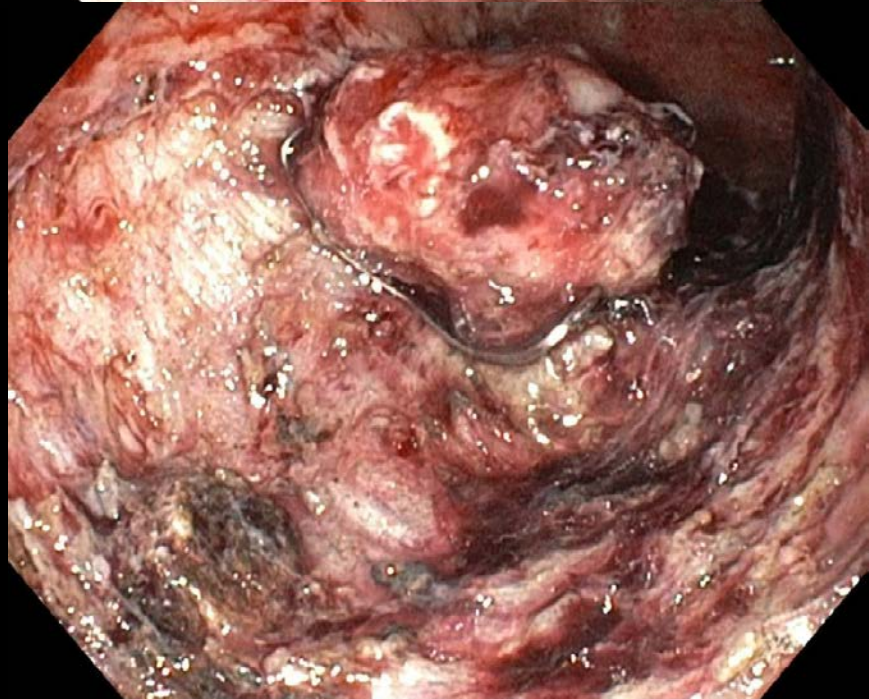
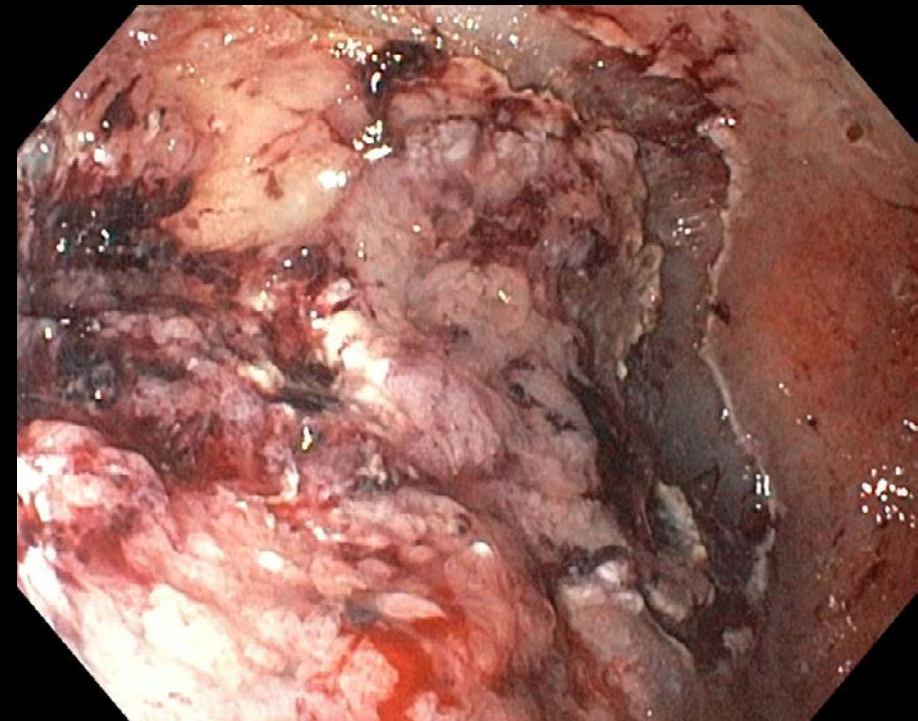


High-grade-dysplasie



mrT2, mrNx, mrCRM -





High-grade-Dysplasie

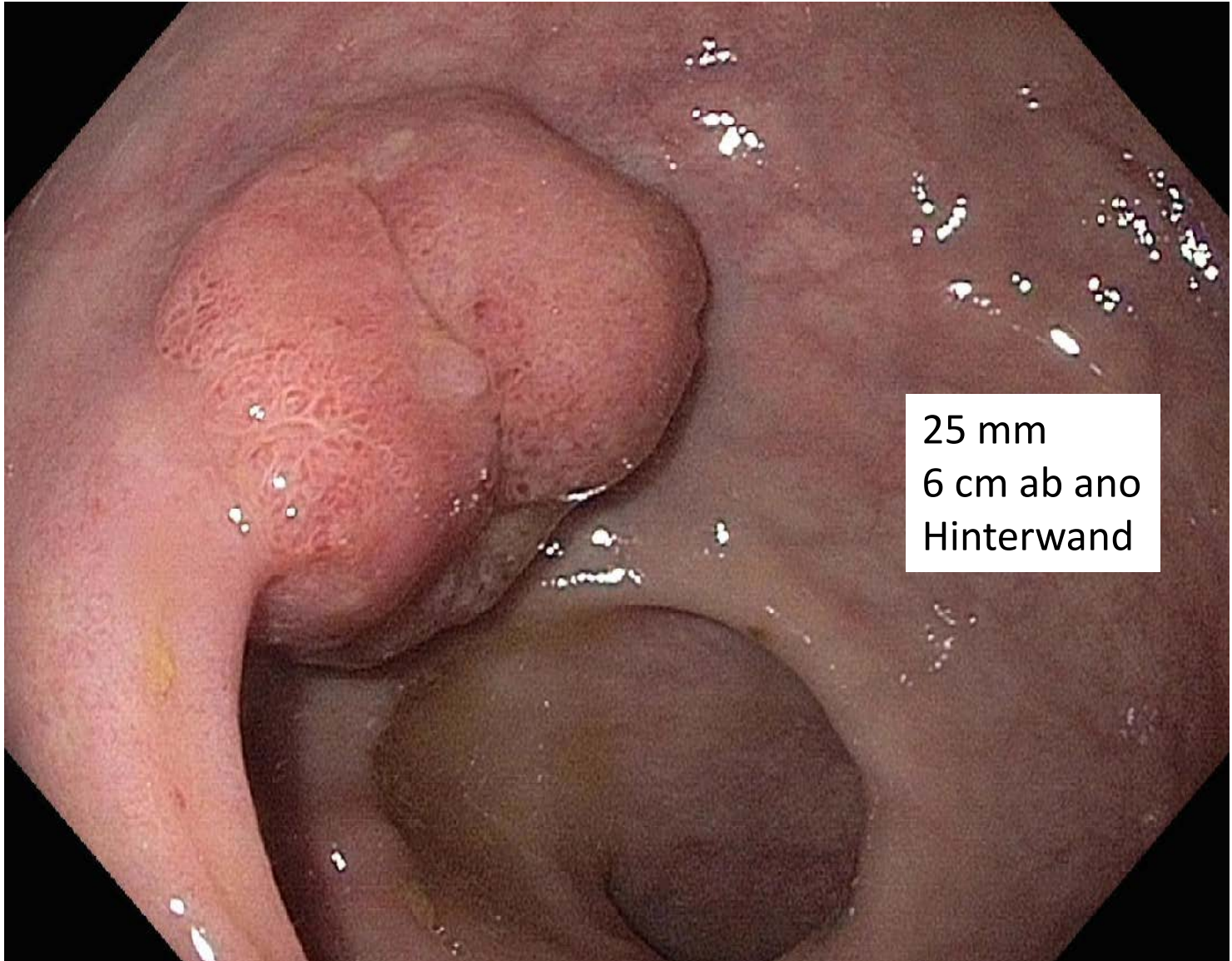
# Tumor size, Position of the tumor

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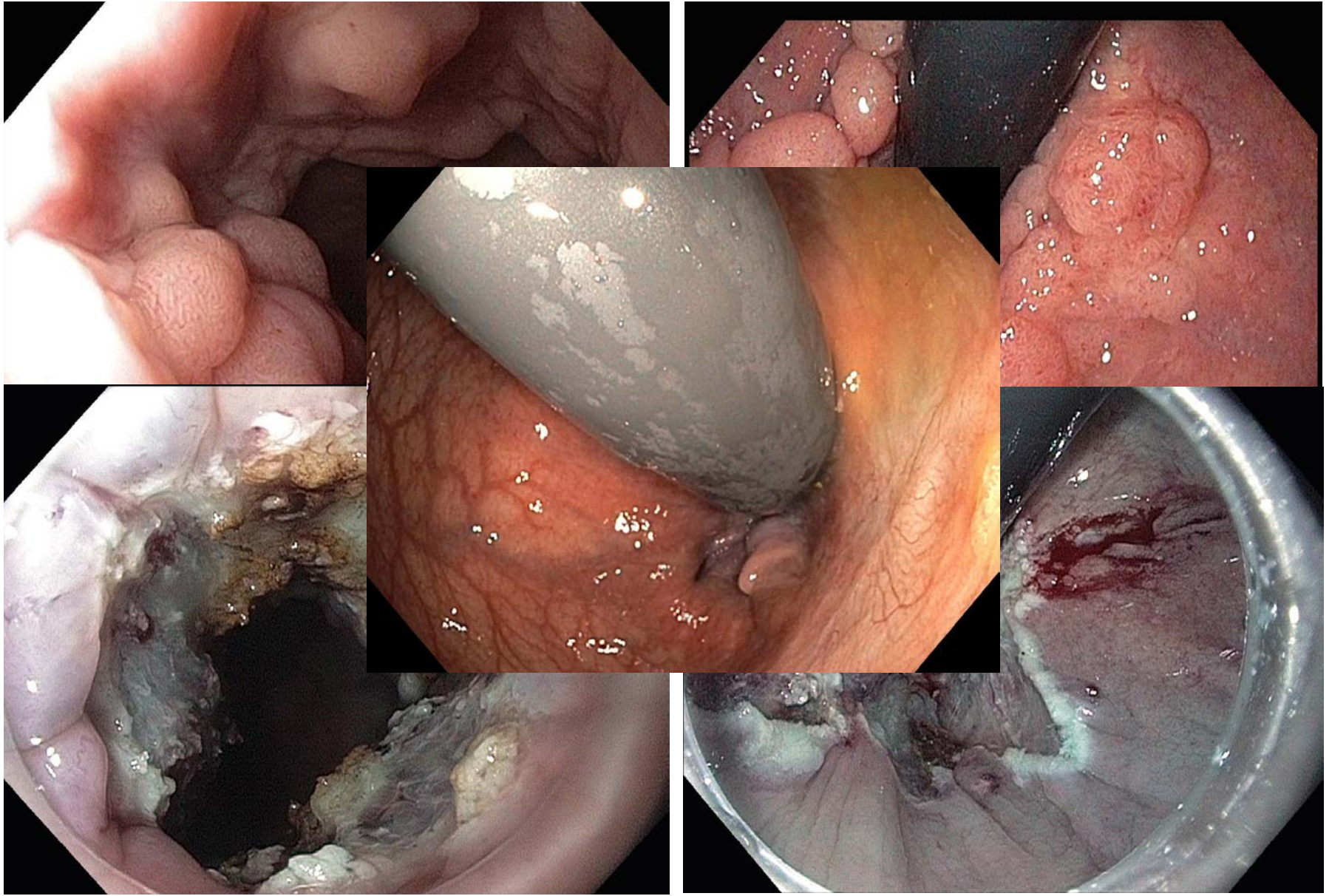


# The simple case

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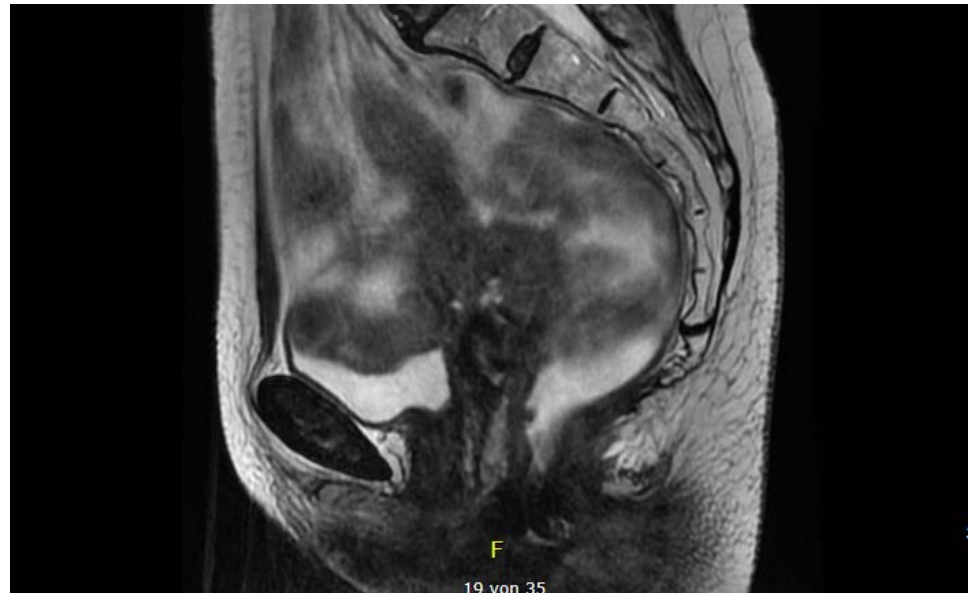
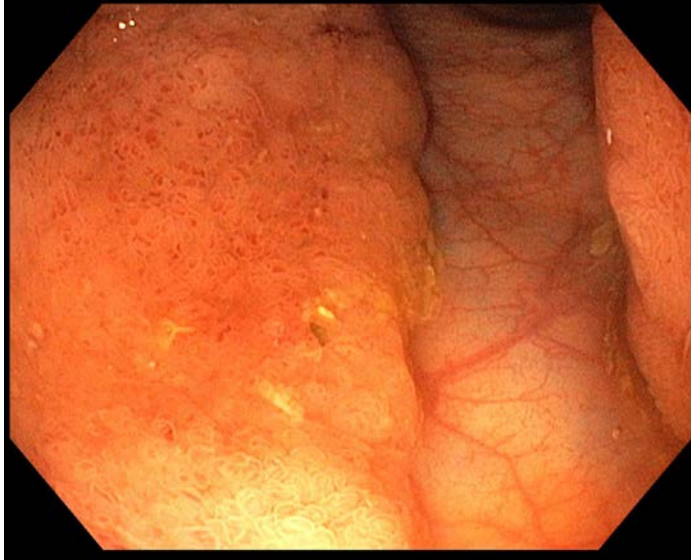
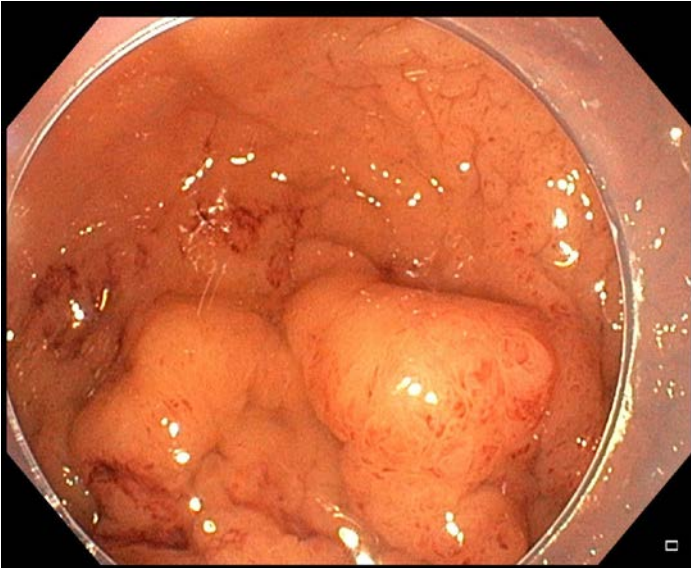
# at the Linea dentata





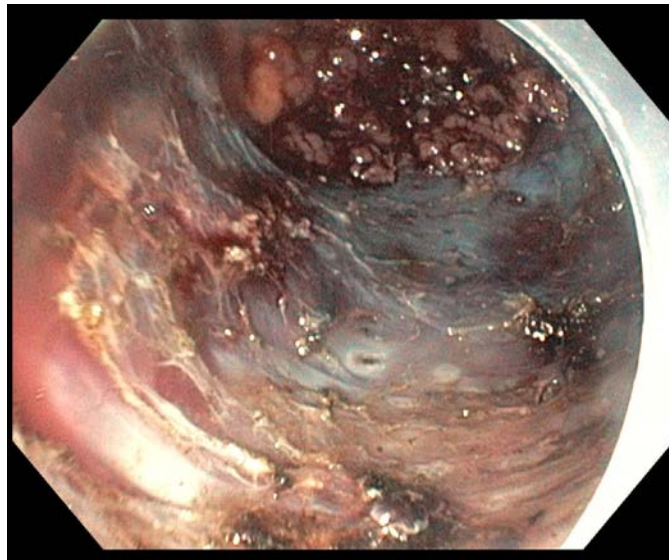
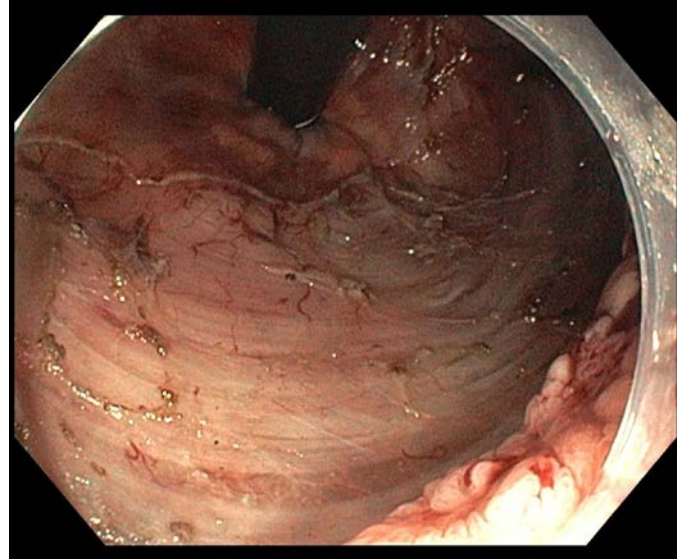
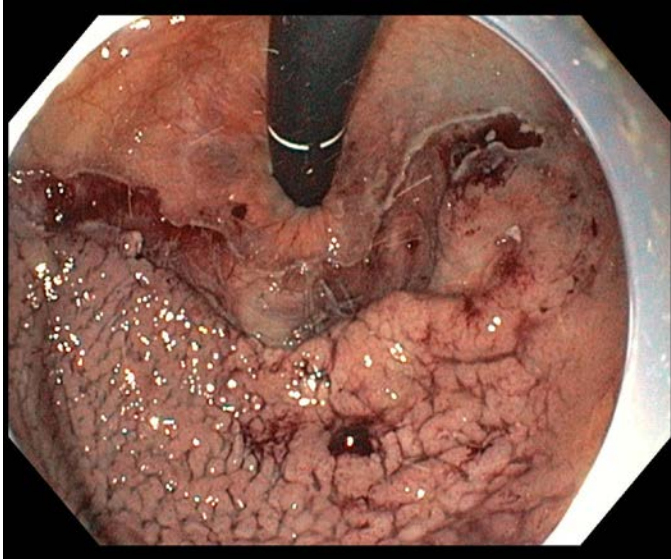
# the very long tumor

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# the very long tumor

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# in toto vs. piece-meal ?

## ESD vs. EMR:

Saito et al. Surg Endosc (2010) 24:343–352:

En bloc resection (%)	74 (33%)	122 (84%)
Recurrence rate (%)	33 (14%)	3 (2%)
En bloc/piecemeal recurrences	2/31	0/3
Complications		
Perforation	3 (1.3%)	9 (6.2%)
Delayed bleeding	7 (3.1%)	2 (1.4%)
Procedure time (mean $\pm$ SD; min)	29 $\pm$ 25	108 $\pm$ 7

Local recurrence  
R1-resection

transanal microscopic  
vs.  
endoscopic tumor resection

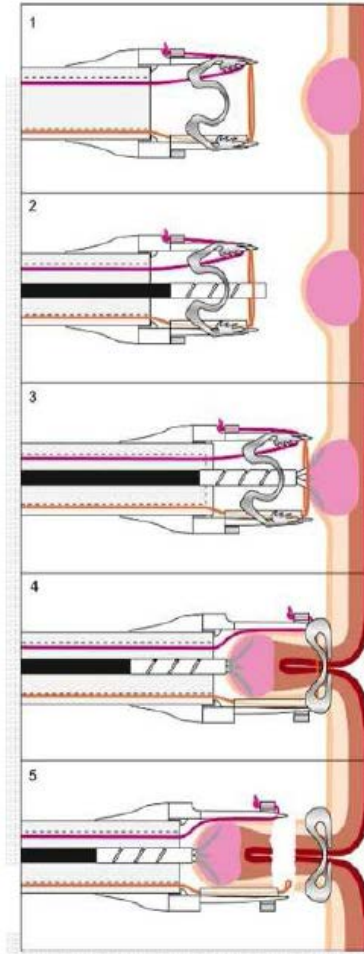


# Local recurrence, deep invasion: full thickness resection device

**Endoscopic resection:** Full thickness resection device (FDRT)

Schmidt, Endoscopy 2015; 47: 719:

25 Pat



# Local recurrence after piecemeal resection (EMR)

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Moss A, Bourke MJ Gut 2015;64:57

July 2008–July 2012: 1000 EMR

Mean lesion size: 36.4 mm (range 20–130 mm, SD 17)

Median lesion size: 30 mm (IQR 25–40 mm)

799 patients with EMR: 128 (16%) local recurrences

136 treated endoscopically

10 (1.2%) treated surgically

# The battle: Surgery vs. Endoscopy: Literature

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## Wang Tech Coloproctol (2016) 20:1–9 (4 studies):

NO difference: en-bloc resection rate (OR 0.82; 95 % CI 0.25–2.70;  $p = 0.74$ )  
R0 resection rate (OR 1.53; 95 % CI 0.62–3.73;  $p = 0.35$ )  
overall complication rate (OR 0.67; 95 % CI 0.26–1.69;  $p = 0.40$ )  
ESD better: recurrence rate (OR 0.15; 95 % CI 0.03–0.87;  $p = 0.03$ )

## Arezzo, Surg Endosc (2014) 28:427–438 (22 studies):

TEM better: en bloc resection rate 87.8 % versus 98.7 %  
R0 resection rate was 74.6 % versus 88.5 %  
surgery with abdominal access 8.4 % versus 1.8 %  
ESD better: recurrence rate was 2.6 % versus 5.2 %  
hospitalisation time

Main argument PRO surgery -> Vollwandresektion  
en bloc (R0) resection

# Endoscopic full thickness resection device



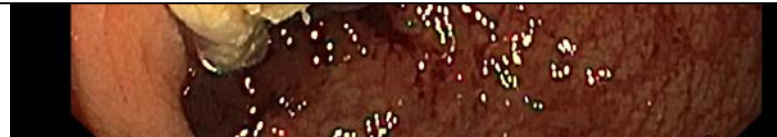
Beurteilung:

Rektumkarzinom im proximalen Rektumdrittel / rektosigmoidaler Übergang.

1 suspekter Lymphknoten im Mesorektum/iliacal intern links (max. 5 mm).

Keine Infiltration des Analsphinkters oder sonstiger Organe.

mrT3, mrN1, mrCRM -



## ***Diagnose***

**Vollwand-Resektat (proximales Rektum): Mässig differenziertes Adenokarzinom mit Infiltration der Submukosa.**

**Peritumoral Anteile eines Adenoms mit high-grade Dysplasie.**

**Kein Nachweis einer Gefässinfiltration. Tumorfremie tiefe Abtragung in Höhe des perirektalen Fettgewebes.**

**TNM-Klassifikation (7. Auflage, 2010): pT1, L0, V0, G2, R0**

**Immunhistochemie für Mismatch-Repair Proteine: Tumorspezifischer Ausfall der MSH-6-Expression (siehe Kommentar).**

**Anhaltende Expression von MSH-2, MLH-1 und PMS-2.**

# The Battle: Transanal mikroskopisch vs. Endoskopische Tumorresektion

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R0 resection: ?  
En-bloc resection: ?  
Local recurrence: ?  
Complication rate: Endo better than surgery  
Very long tumor: Endo better than surgery  
Linea dentata: Endo better than surgery  
Full thickness resection: Yes, Endo can do it!

Outcome: ?  
Functional, Metastasis, Mortality

## Costs:

Nam et al. Ann Surg Treat Res 2015;89(4):202-207 (Korea)

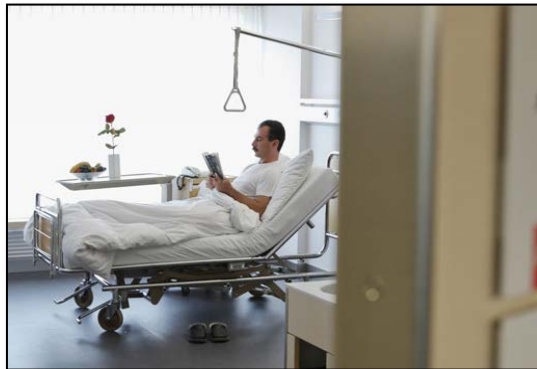
80 patients (not randomized):  
Surgery (TEM) vs. endoscopy (ESD)

ESD: 1,710 US\$

TEM: 2,512 US\$



# The Battle: Transanal mikroskopisch vs. Endoskopische Tumorresektion



*Vielen Dank !*

