



Colorectal cancer
Clinical Cases Nov 22nd 2017

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case history

- 71 y/o male patient reports to the OPD with rectal blood loss for 4 days.

anamnesis:

- detection?
- start? period? continuity?
- pain?
- amount? color?
- earlier episodes?



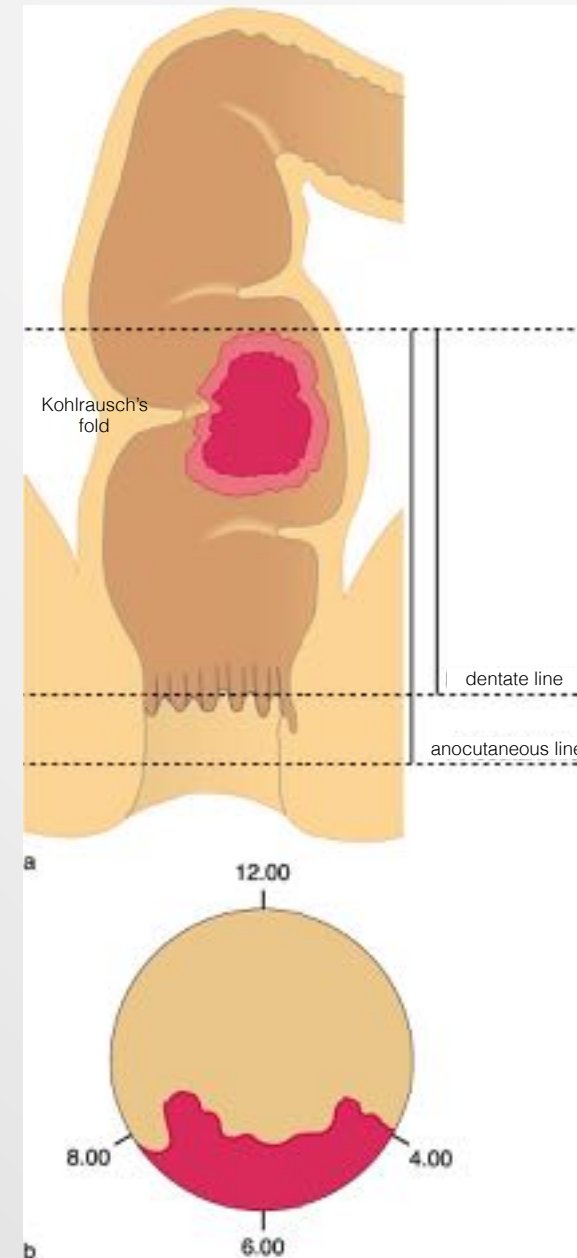
case history

- few „blood clots and fresh blood“ after bowel movement
- started 4 days ago; no pain
- earlier episodes of obstipation and diarrhea; now mostly thin stool

diagnostics?

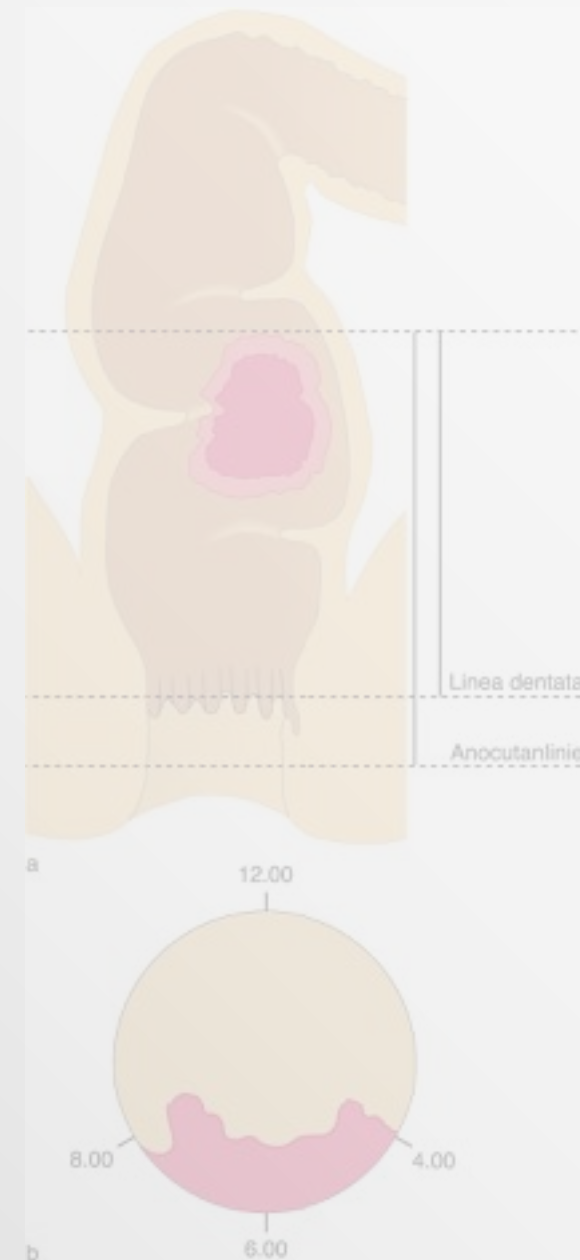
diagnostics

- clinical examination + DRE
 - palpable?
 - ability to pass?
 - rigidity?
 - blood?



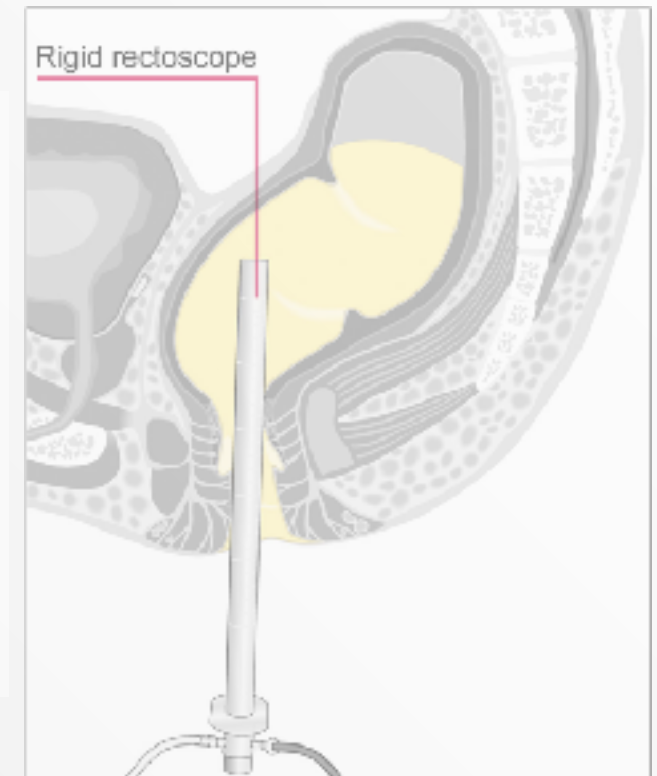
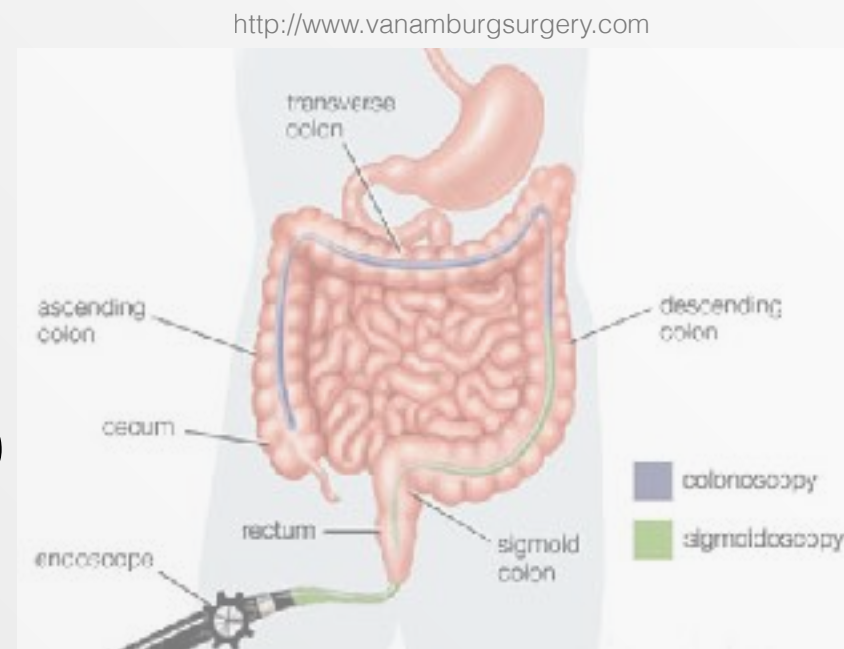
diagnostics

- clinical examination + DRE
- blood taking: CEA + CA19-9
 - why?



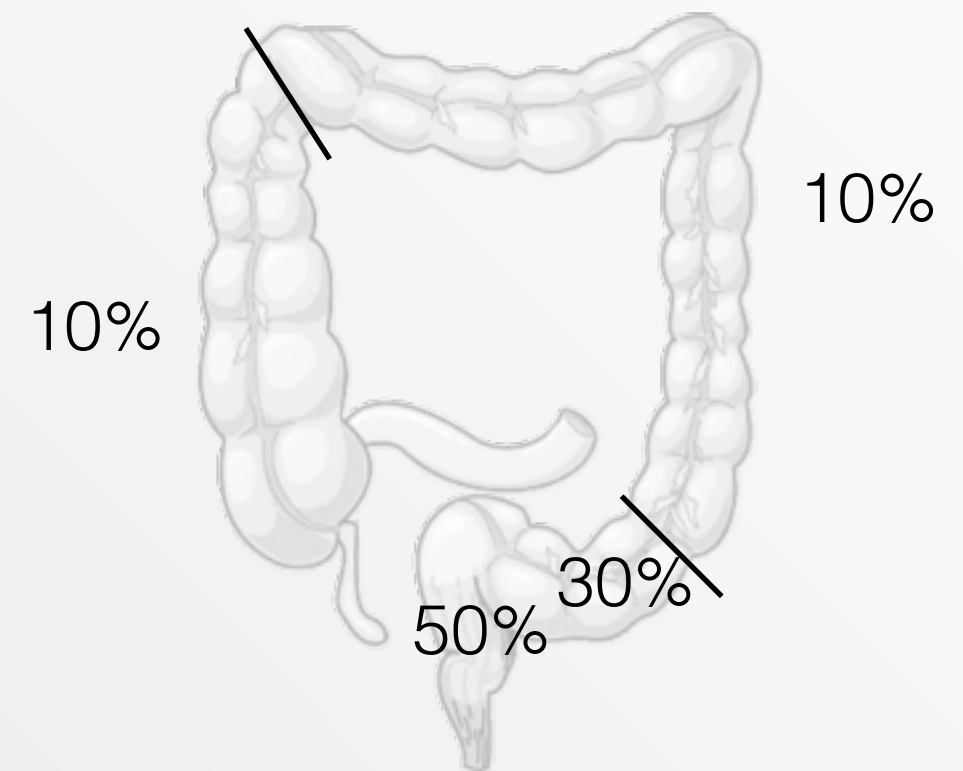
diagnostics

- clinical examination + DRE
- blood taking: CEA + CA19-9
- rigid rectoscopy
- colonoscopy
- endosonography
- staging-CT
- pelvic MRI



Colorectal cancer

- 2nd most common of all malignomas
- typical age: 70-75
- f/m: 50/50
- 90% follow an adenoma-carcinoma sequence
- 85% adenocarcinoma, 10-15% mucinous carcinoma
- hereditary forms:
 - FAP (familial adenomatous polyposis)
 - HNPCC (hereditary nonpolyposis colorectal cancer)





TNM-staging system

- T: invasion of the primary tumor
 - T1: tumor invades submucosa
 - T2: tumor invades muscularis propria
 - T3: Tumor invades subserosa or beyond
 - T4: tumor invades adjacent organs or perforates visceral peritoneum
- N: involved regional lymph nodes
- M: distant metastasis



Prognosis (5 year survival)

- stage I (T1/T2, N0, M0) approx. 80%
- stage II (T3/T4, N0, M0) approx. 50%
- stage III (all T, N+, M0) approx. 30%
- stage IV (all T, all N, M+) approx. 5%

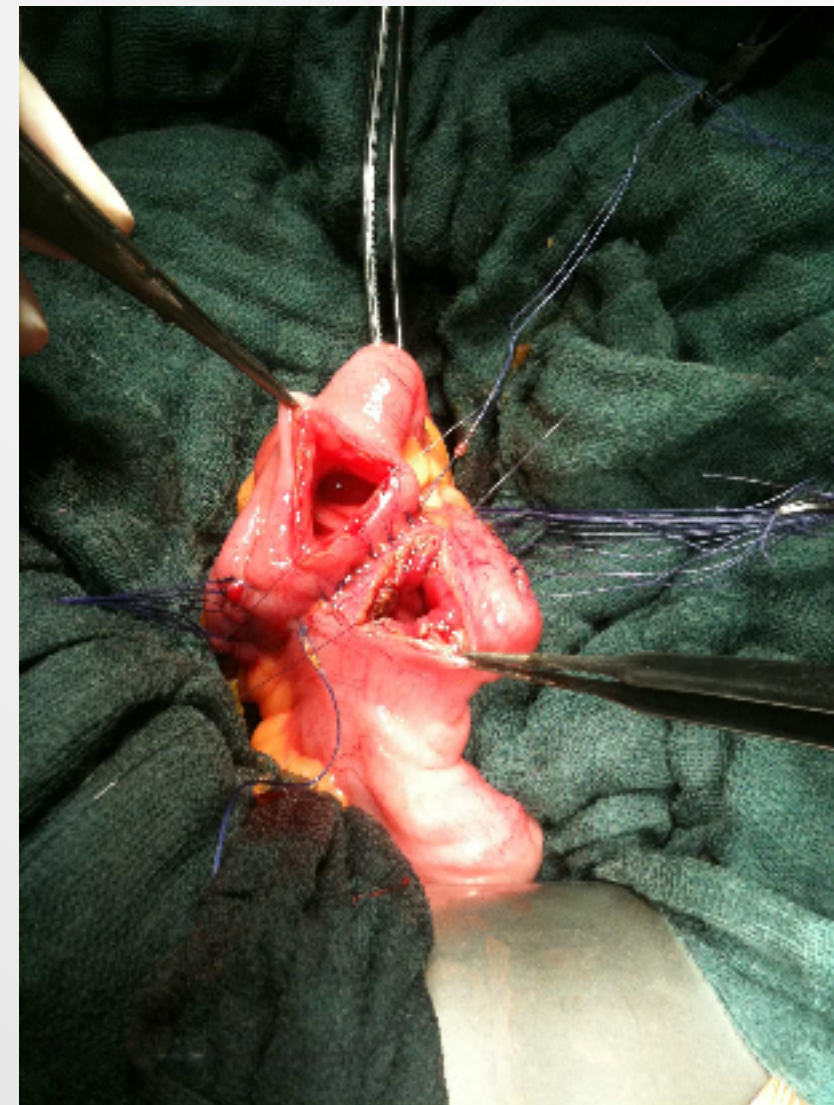
UICC disease stage	T staging	N staging	M staging
Stage 0	Tis	N0	M0
Stage I	T1, T2	N0	M0
Stage IIA	T3	N0	M0
Stage IIB	T4	N0	M0
Stage IIIA	T1, T2	N1	M0
Stage IIIB	T3, T4	N1	M0
Stage IIIC	Any T	N2	M0
Stage IV	Any T	Any N	M1



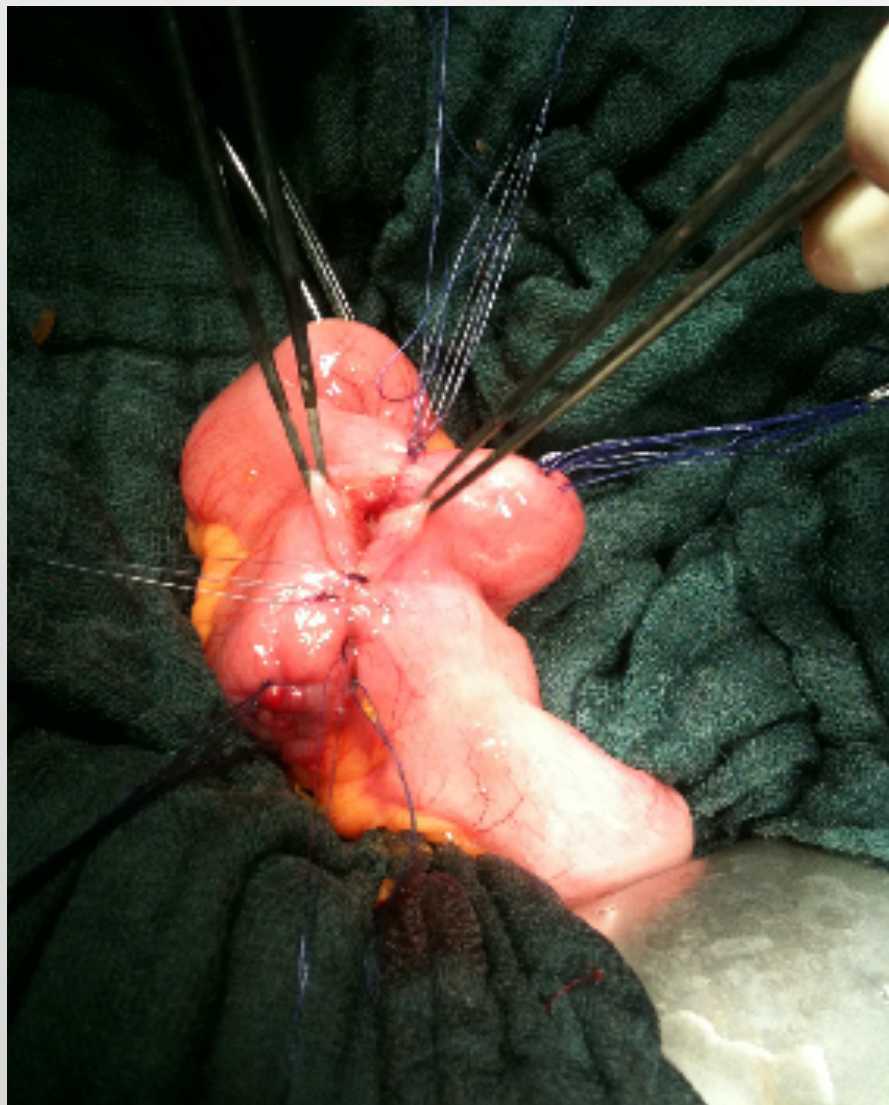
Therapy

- primary surgery for stages I, II, III
- neoadjuvant therapy >T3 / N+ (IIIb)
- adjuvant therapy for stages III (II)

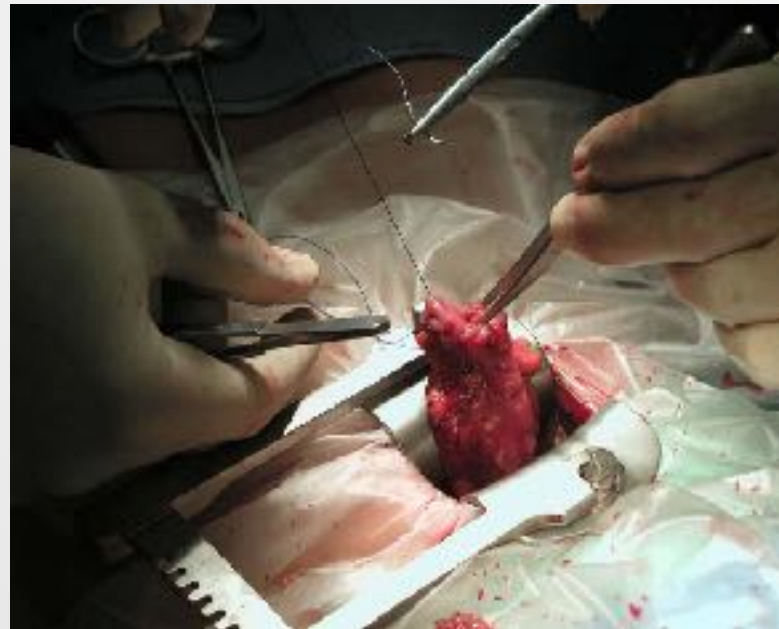
Side-by-side anastomosis



Side-by-side anastomosis



Laparoscopic sigmoid resection



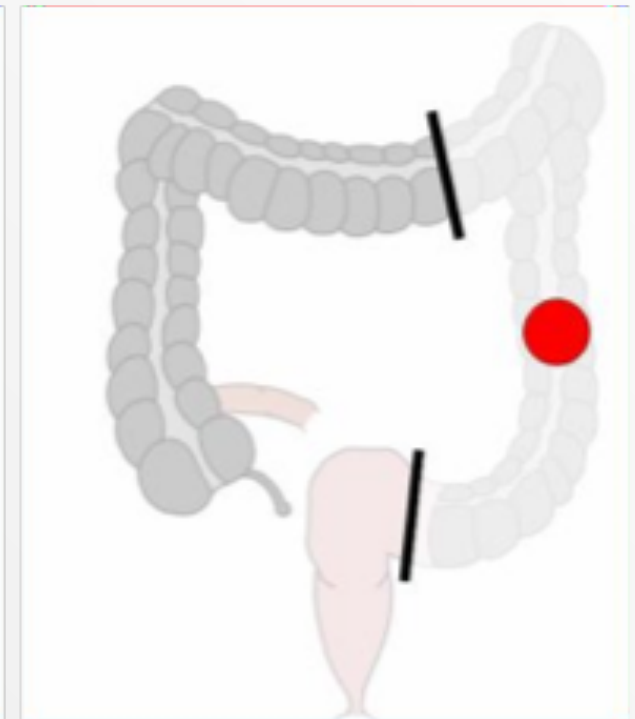
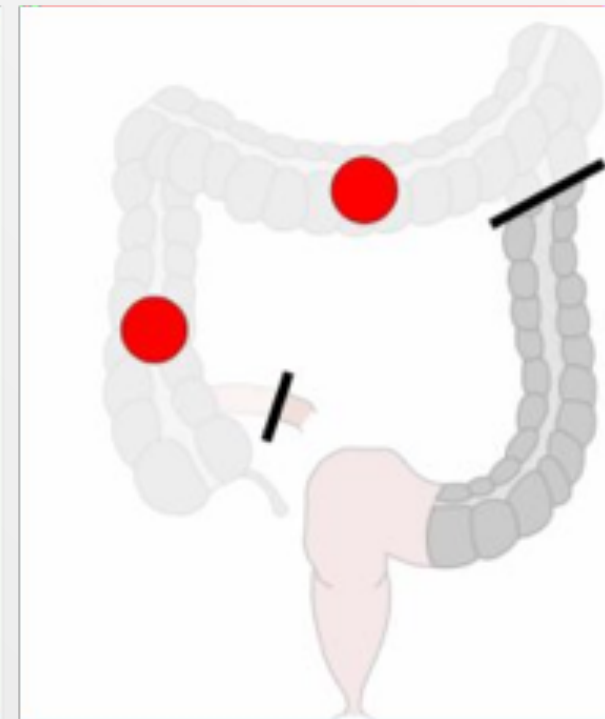
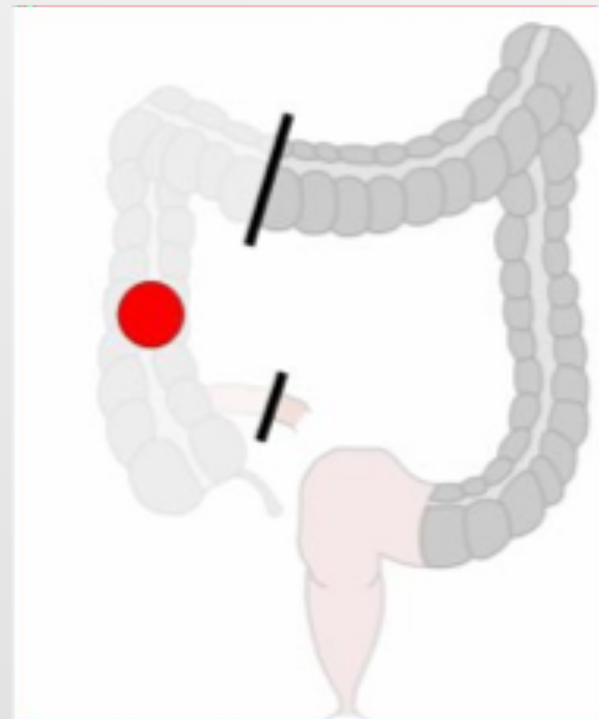
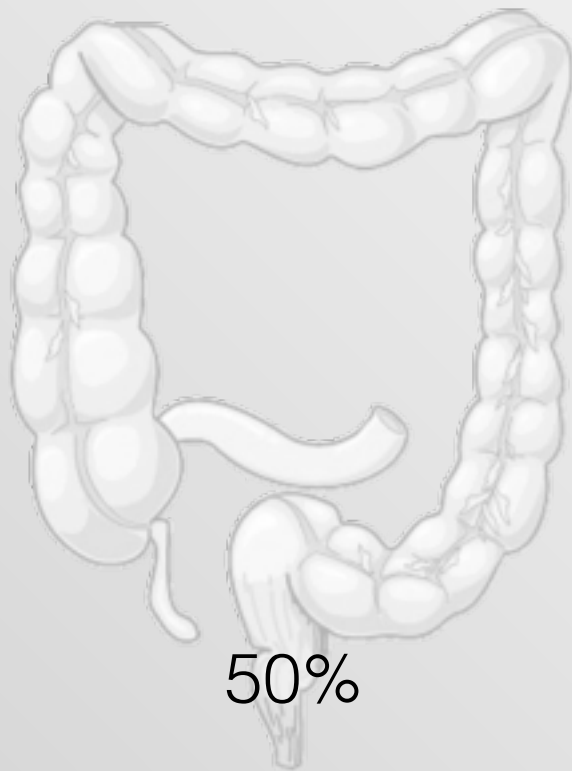


Laparoscopic sigmoid resection

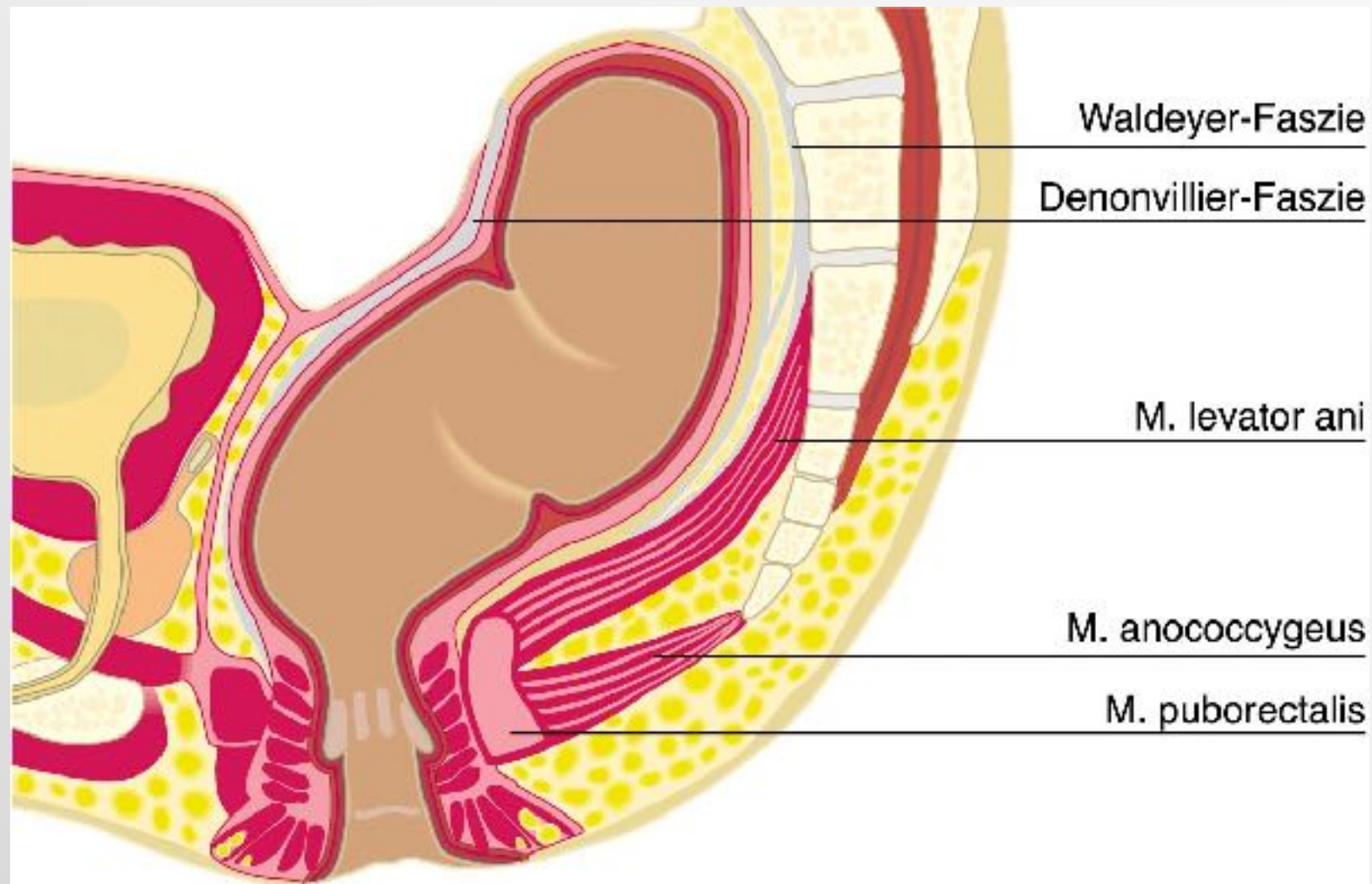
<https://youtu.be/sF2OmfpekCE>



primary surgery



Rectal cancer





Total mesorectal resection

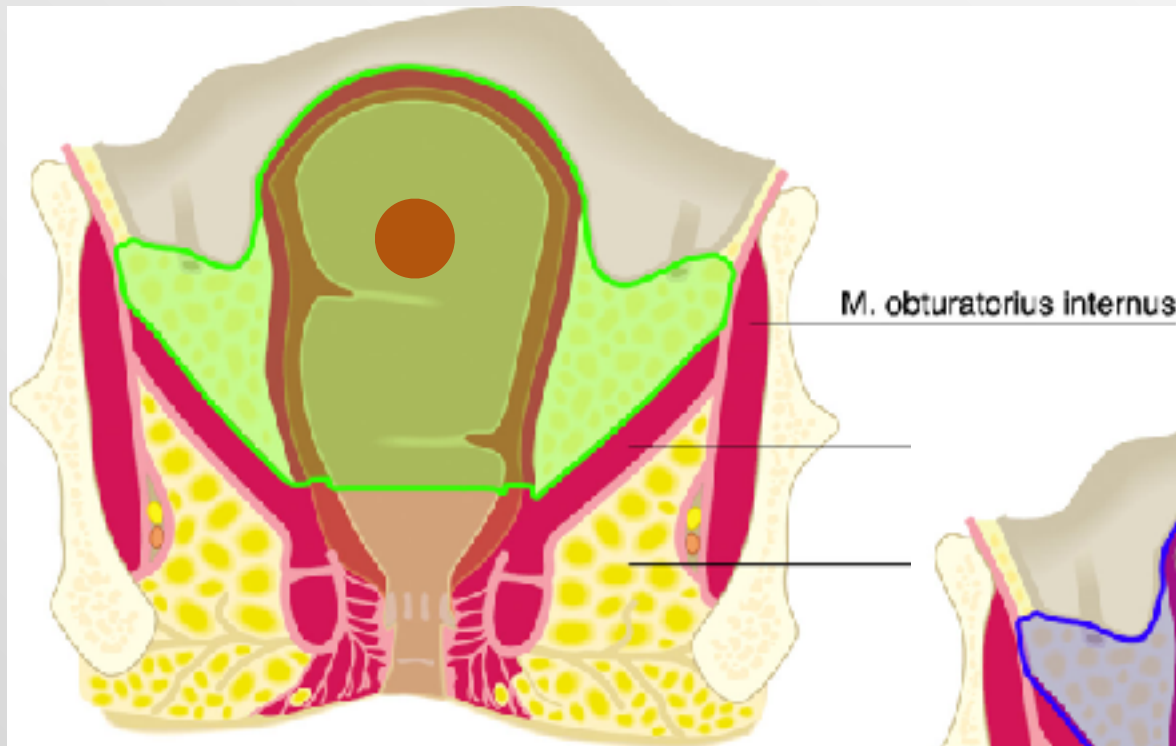
TME - Total mesorectal resection:
„The holy plane of
rectal surgery“

RJ Heald, 1988

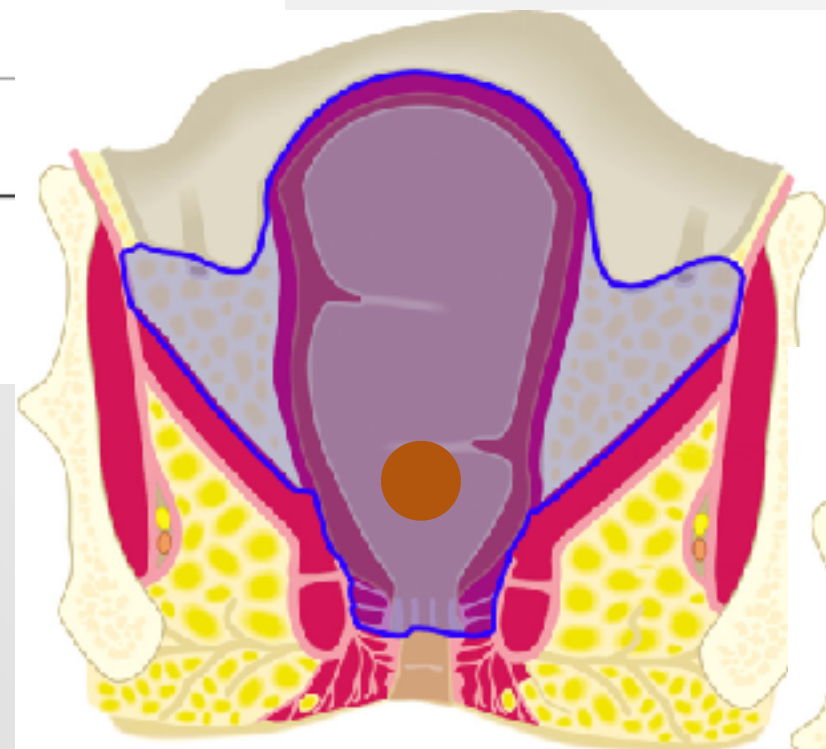
Waldeyer's fascia

Denonvillier's fascia

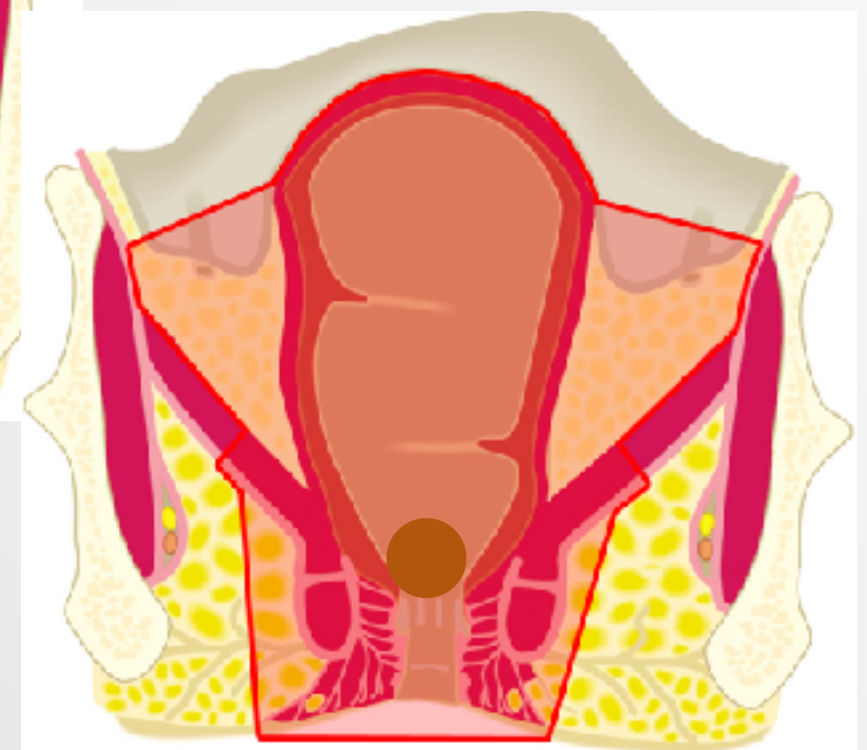
Rectal cancer - radical options



low anterior resection

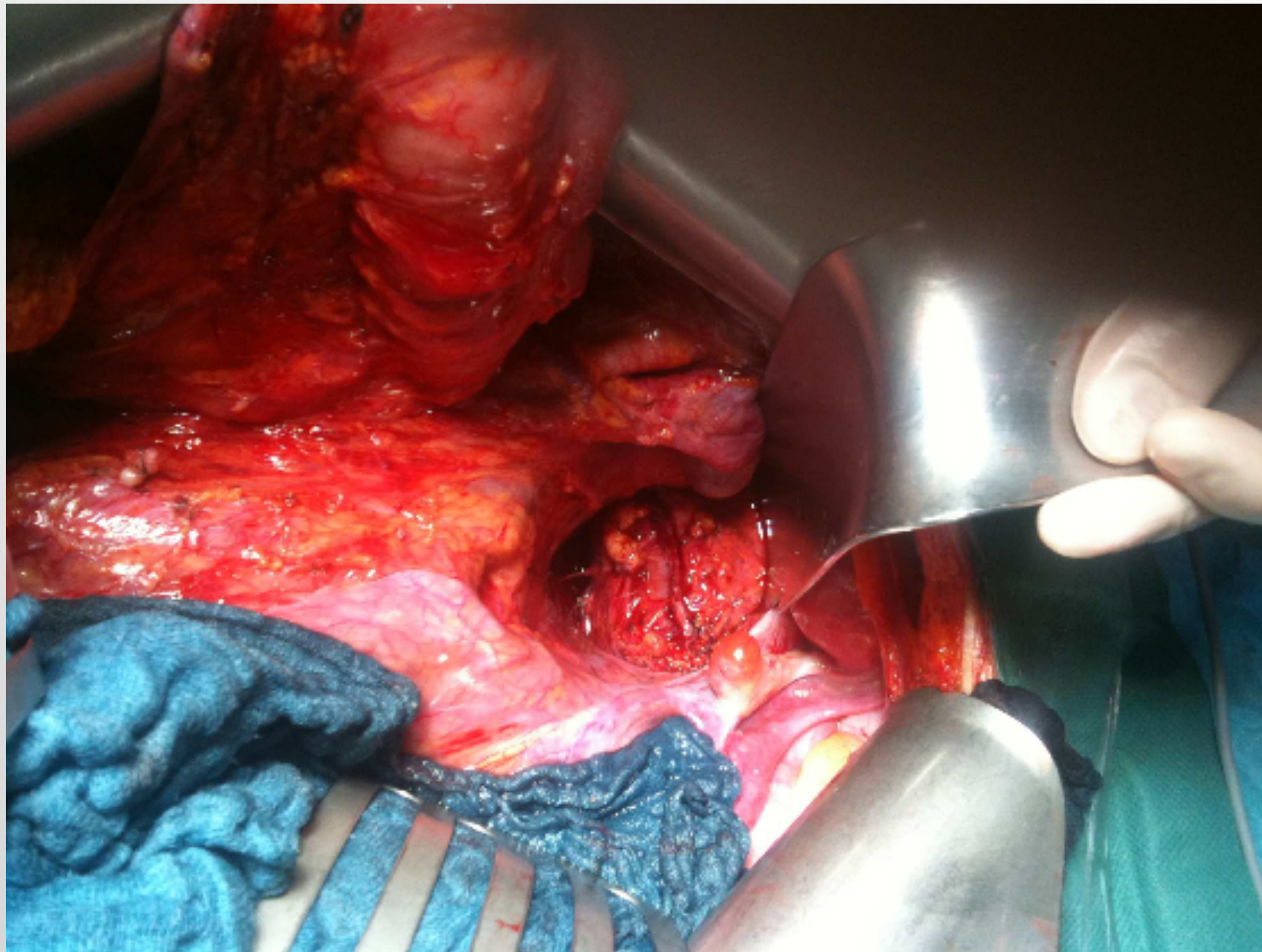


intersphincteric resection

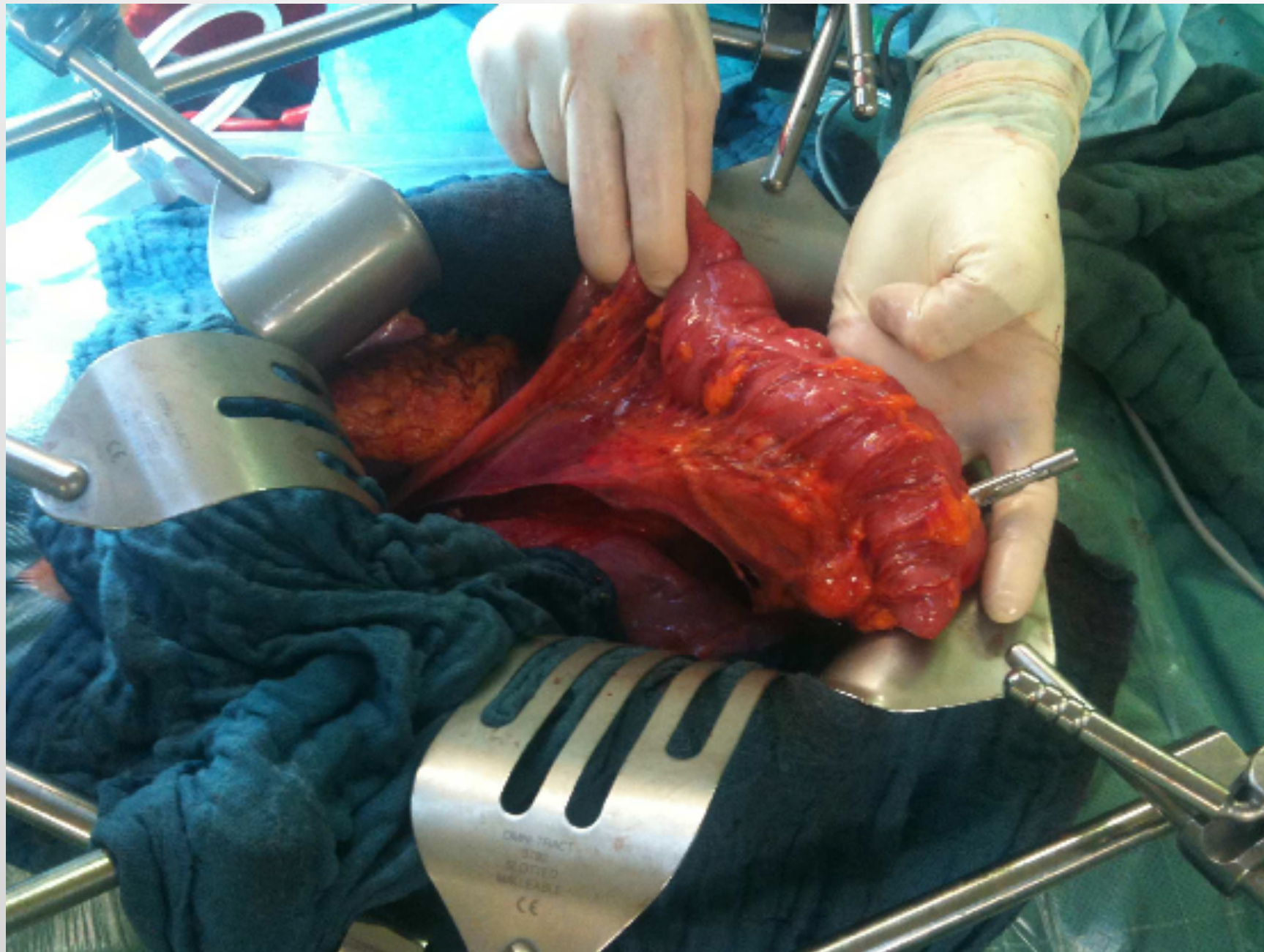


exstirpation

Low anterior resection

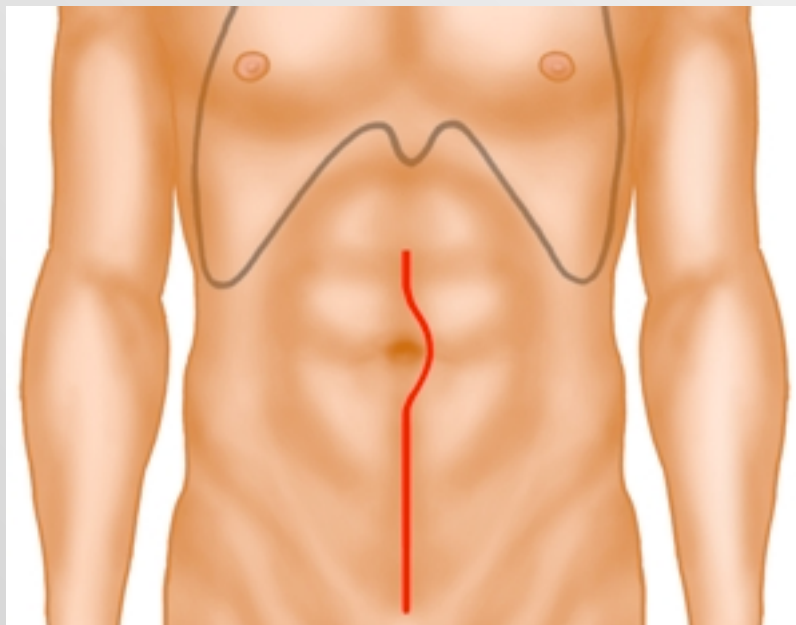


Low anterior resection

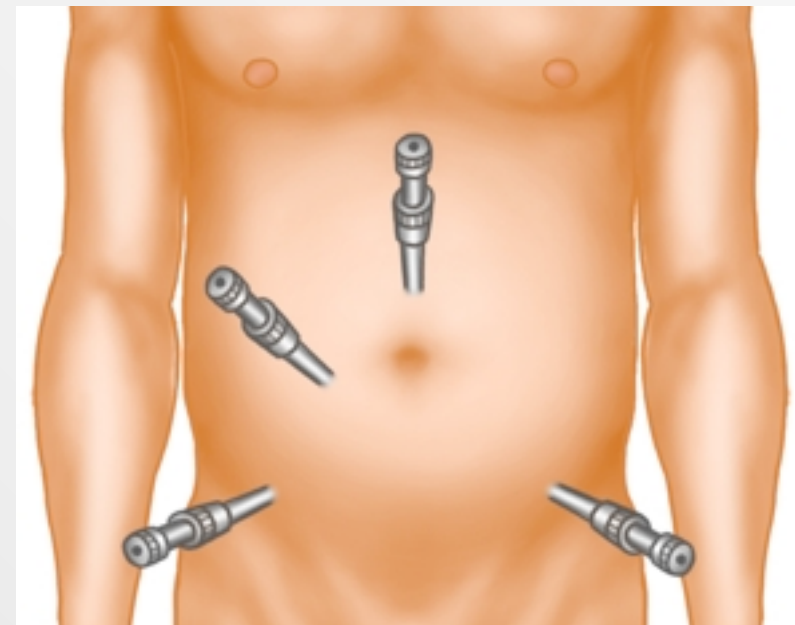




Open vs. laparoscopic approach



?



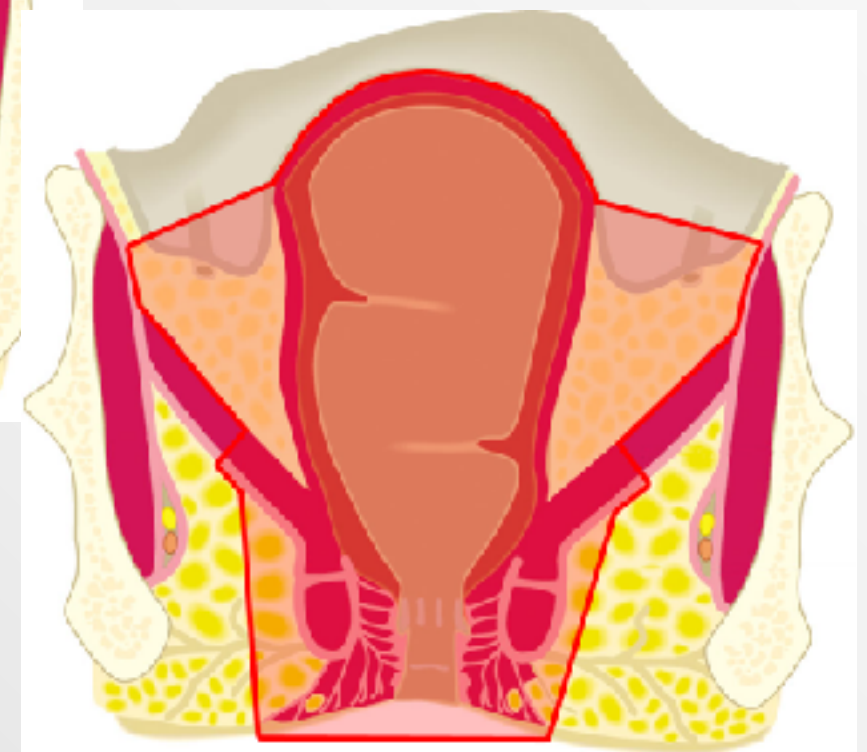
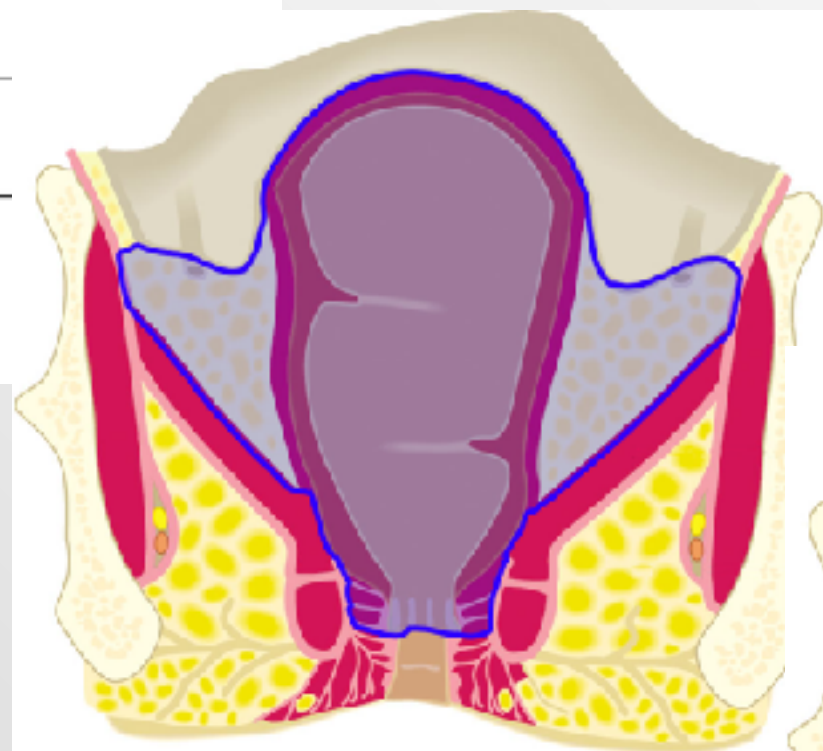
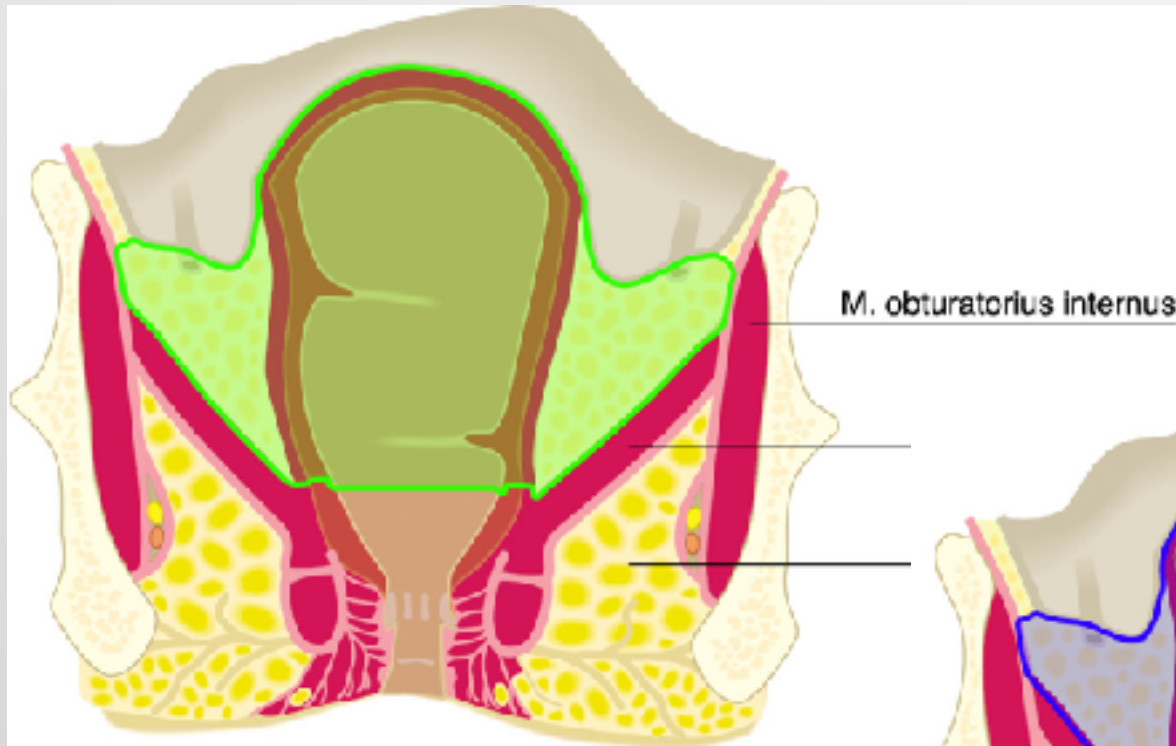
<http://www.webop.de/surgeries/36>

<http://www.webop.de/surgeries/42>

Rectal cancer - more options?

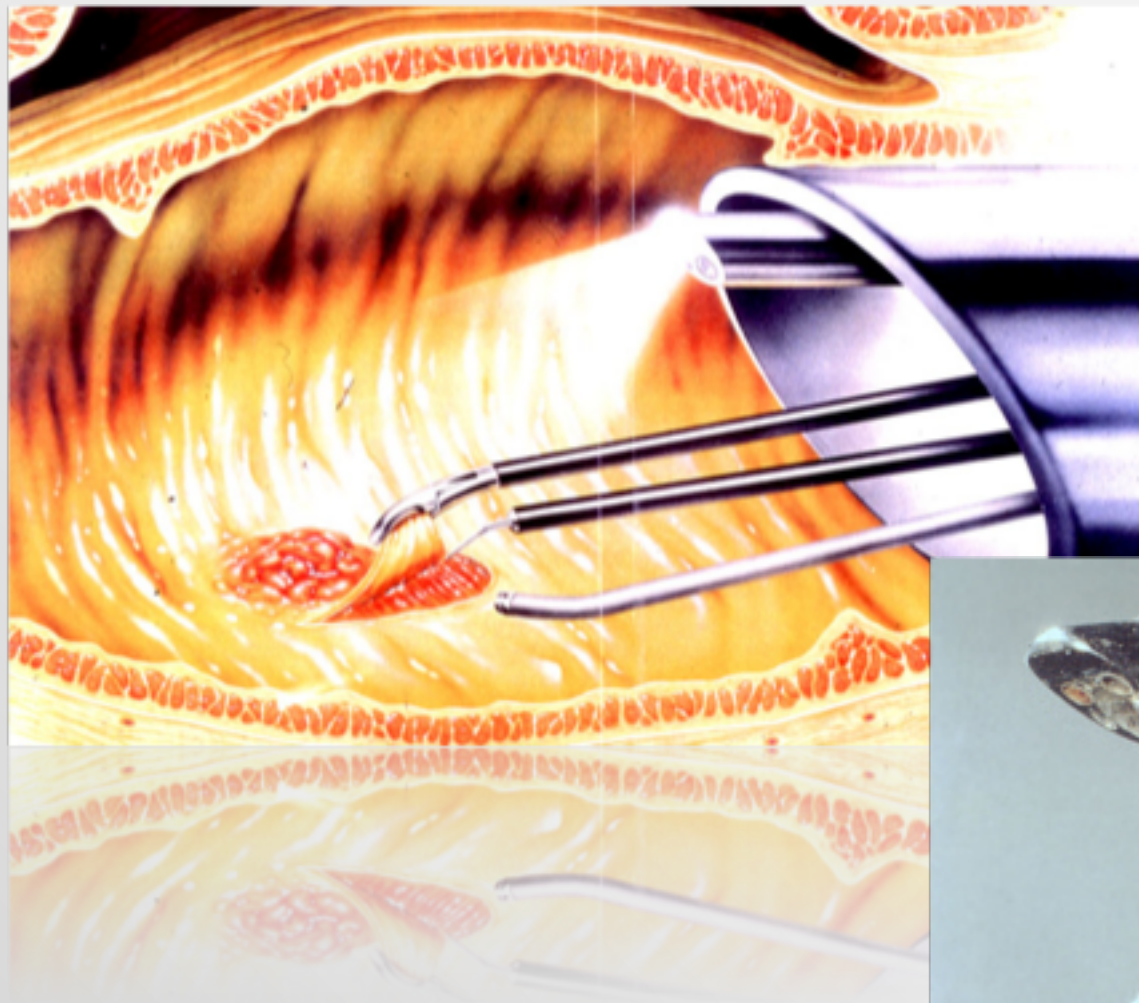
TEM - Transanal endoscopic
microsurgery

GF Bueß, 1983





TEM (transanal endoscopic microsurgery)

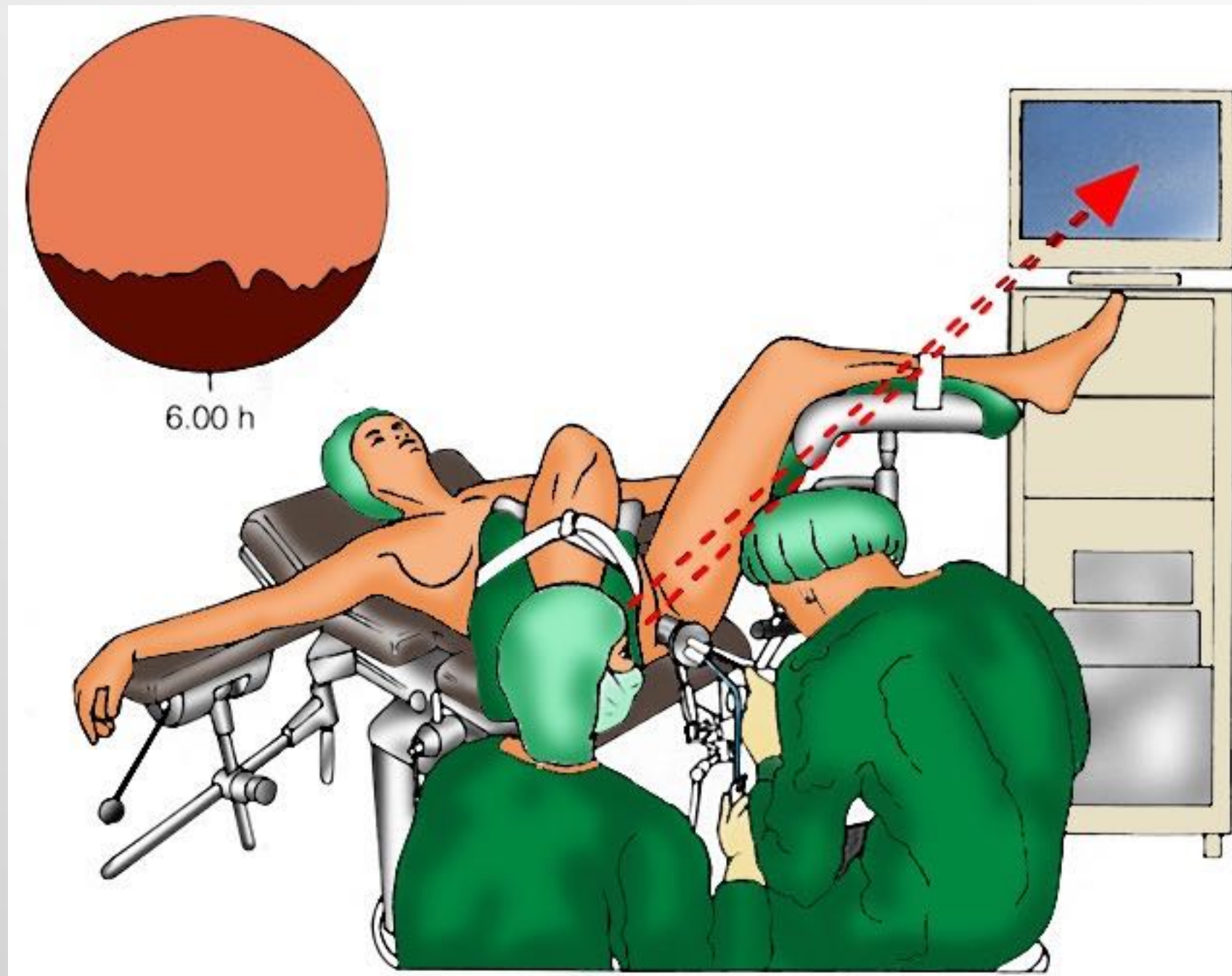




TEM - indications

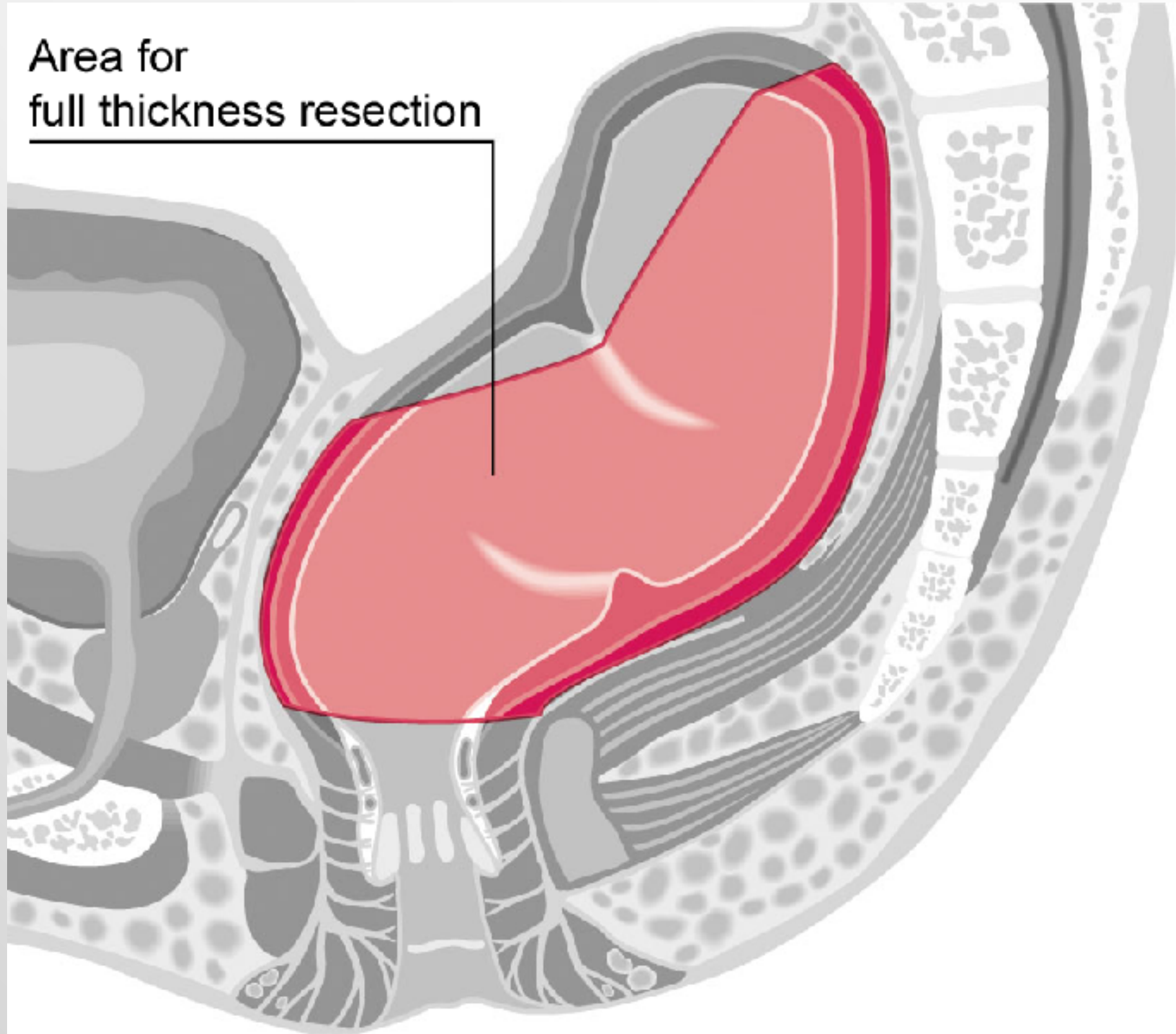
- local surgical therapy
 - T1 <3cm
- low-risk histopathology

TEM - positioning



TEM

Area for
full thickness resection



Universitätsklinikum Tübingen

**Kompetenz
mit Herz**

www.uniklinikum-tuebingen.de



Vielen Dank

für Ihre Aufmerksamkeit!

**Thank you
for your attention!**

