

Common Problems in Proctology:

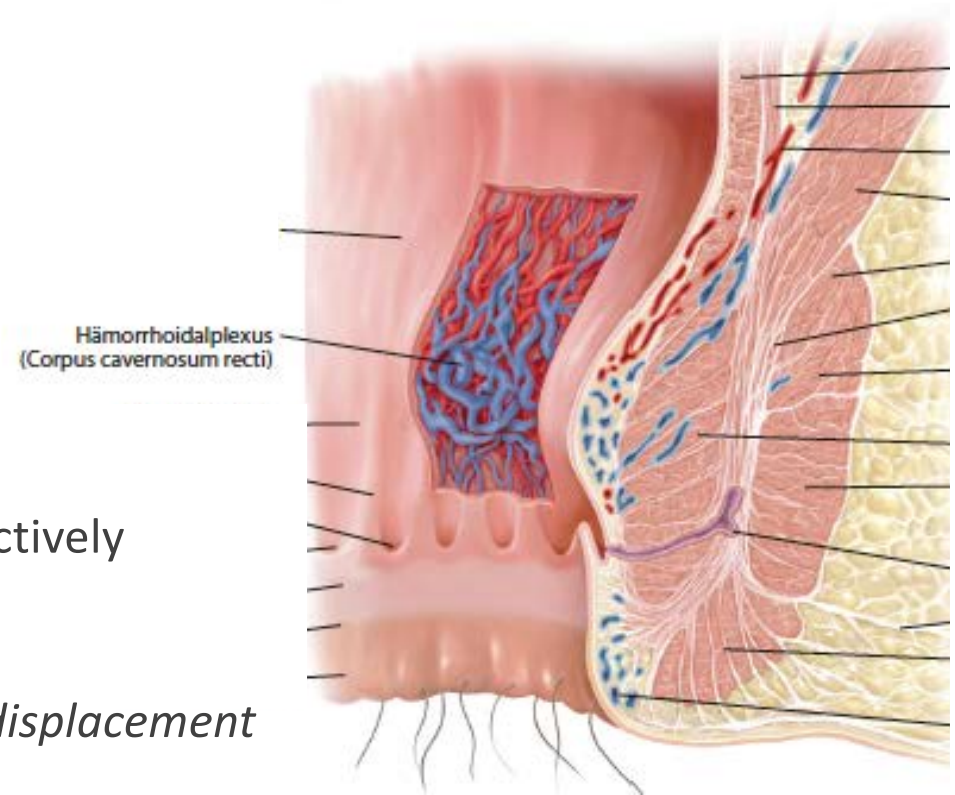
Haemorrhoids?!



What are haemorrhoids?

Definition of haemorrhoids:

- Greek: *haima*=Blut; *rhoos*=flow
- Plexus haemorrhoidalis superior =
Corpus cavernosum recti (everybody)
 - = tumescent body, erectile tissue, respectively
 - Key-Part of the “continence organ”
- **Haemorrhoids:** “enlargement and distal displacement of the normal anal cushions” happens
- If symptomatic: **Haemorrhoidal disease**
- Perianal veins: NO Haemorrhoids
 - Even though: Americans call them: “External hemorrhoids”



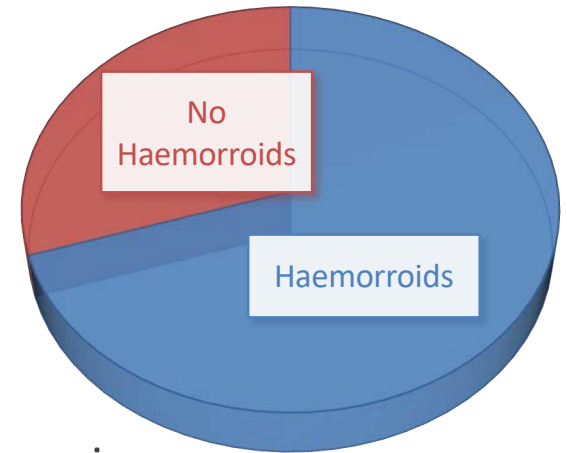
1. Lohsiriwat V. Hemorrhoids: from basic pathophysiology to clinical management. World journal of gastroenterology 2012
2. Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al. Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.
3. Davis BR, Lee-Kong SA, Migaly J, Feingold DL, Steele SR. The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Management of Hemorrhoids. Diseases of the colon and rectum 2018



Are haemorrhoids: “common”?

Epidemiology

- Every review:
 - No good data on Prevalence and Incidence
 - Haemorrhoids the **most** common proctological diagnosis
- Underreported by “self-treatment”; special collectives analysed
 - ⇒ 4.4% Incidence (per year)¹
 - “Colonoscopy population”: 39% Prevalence²
 - ⇒ Lifetime Incidence: 70%³
- Even not really clear if haemorrhoids (asympt.) or haemorrhoidal disease?
 - Not all need to be operated...³
 - **But YES; haemorrhoids are common!**



1. Lohsiriwat V. Hemorrhoids: from basic pathophysiology to clinical management. World journal of gastroenterology 2012
2. Riss S, Weiser FA, Schwameis K, et al. The prevalence of hemorrhoids in adults. International journal of colorectal disease 2012
3. Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al. Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.



Not all anal complaints are hemorrhoids...

Many general practitioners (GPs) do not look at the anus...

- Patients often think it's haemorrhoids
 - 63% of abdominal- or/and anal complaints
 - Only 18% were really haemorrhoids
 - ⇒ So patients often are wrong...(only in 29% correct)¹
- GP often refer patients as “having haemorrhoids”:
 - Even, if they do an investigation, they are often wrong (<50%(!))²
 - Investigate the patient profoundly (ask, look, palpate...)



1. Rohde H, Christ H: Hämorrhoiden werden zu häufig vermutet und behandelt. Dtsch med Wochenschr 2004
2. Grucela A, Salinas H, Khaitov S, Steinhagen, RM, Gorfine, SR, Chessin, DB: Prospective analysis of clinician accuracy in the diagnosis of benign anal pathology: comparison across specialties and years of experience. Dis Colon Rectum 2010



Pathogenesis/Aetiology/Risk factors...

Why do we get haemorrhoids?!

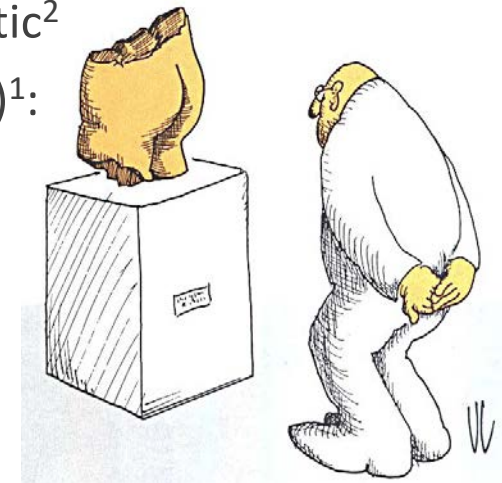
- Aethiopathogenesis is **poorly understood**
 - Miles: main arteries at 3/7/11 o'clock
 - ⇒ Newer investigations could not show that!
 - Changes of the arteriovenous pl./longitudinal submuc. muscle&collagenous fibres
 - ⇒ Sliding anal canal lining theory (**not** varicosis/**not** high pressure in portal vein)
 - ⇒ Further changes: inflammation, angioproliferation, augmented bloodflow,..
 - ⇒ Change of anorectal physiology: internal sphincter pressure↑, hypersensitivity....
- **Riskfactors**, might be:
 - Adipositas, excessive alcohol intake, spicy food, diarrhoea, constipation, -plegia
 - Also discussed, but rather not, pregnancy, low fibre diet
 - Might be protective: weakened anal sphincters





Most common symptoms in haemorrhoids:

- Only about 45% of patients with haemorrhoids are symptomatic²
- Commonly reported symptoms(% symptomatic haemorrhoids)¹:
 - Itching (60%)
 - Prolapse
 - Troublesome oozing
 - Soiling (Even faecal incontinence)(10%)
 - Pain (normally **not!**) (Discomfort 20%)
 - Bleeding (55%)
- The symptoms do not correlate with the degree of haemorrhoids²
- The haemorrhoidal symptoms are normally mixed and not specific³



1. Jacobs D. Clinical practice. Hemorrhoids. N Engl J Med 2014

2. Riss S, Weiser FA, Schwameis K, et al. The prevalence of hemorrhoids in adults. International journal of colorectal disease 2012

3. Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al. Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.



Very common symptom:



Haemorrhoids



Fistula in ano
Anal fissure



Eczema
Skin tags
Exaggerated hygiene

- ⇒ Often caused by leaking of mucus or small amount of faeces
- Many other diagnoses as potential cause of the symptom
- ⇒ Most commonly caused by toxic or allergene agents
- ⇒ Sometimes no definable cause “pruitus ani sine marteria”



DD: Prolapse; feeling anal nodules...

«Anal-Nodule», that doesn't belong there



«to much skin»:
Skin tags
(Thrombosed)perianal vein
Condyloma



Rectal Prolapse
(complete Rectalwall)



Haemorrhoids a./o.
Anal-Prolapse
(only Mucosa)



«Tumor»:
Anal Cancer

- Haemorrhoids; Mucosal Analprolapse; Rectalprolapse:
 - Rectal and/or Analmucosa is exposed
 - Can normally be reduced
 - ⇒ Radial folds: Mucosal-Prolapse – Circular folds: complete wall prolapse



DD: troublesome oozing...

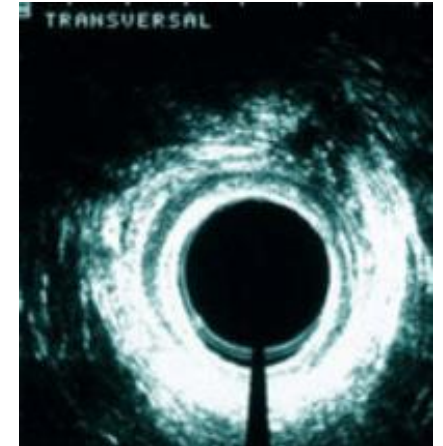
«wet skin around anus»; secretion of liquids



Fistula in ano
Acne inversa



Prolapse (Rectal prolapse,
Anal prolapse & Haemorrhoids)



(Faecal-)Incontinence
e.g. sphincter defect

- The feeling of a “wet anus” is quite common in haemorrhoidal patients
 - Still there can be other illnesses as cause
 - And there can be more than one anal pathology
- ⇒ So have a close look!



coloproctology

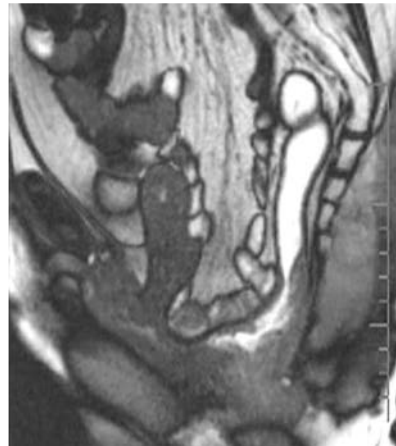
st. gallen & rorschach

DD: soiling; faecal incontinence...

Underreported!!



«weakened sphincters»
e.g. after anal surgery



Perineal descent
Intussusception/
Rectal Prolapse



Haemorrhoids a./o.
Anal-Prolapse



«Tumor»:
Anal Cancer
Rectal Cancer

- Is quiet common in haemorrhoidal patients
 - Soiling of underwear
 - Some patients are wearing panty liners, pads or diapers
 - High rate of “non reporting” because of shame
- ➡ Ask them about continence



Hämorrhoids do not hurt; except...



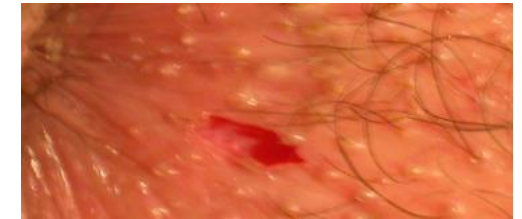
Anal fissure



Abscess



Thrombosis



Wound of perianal skin

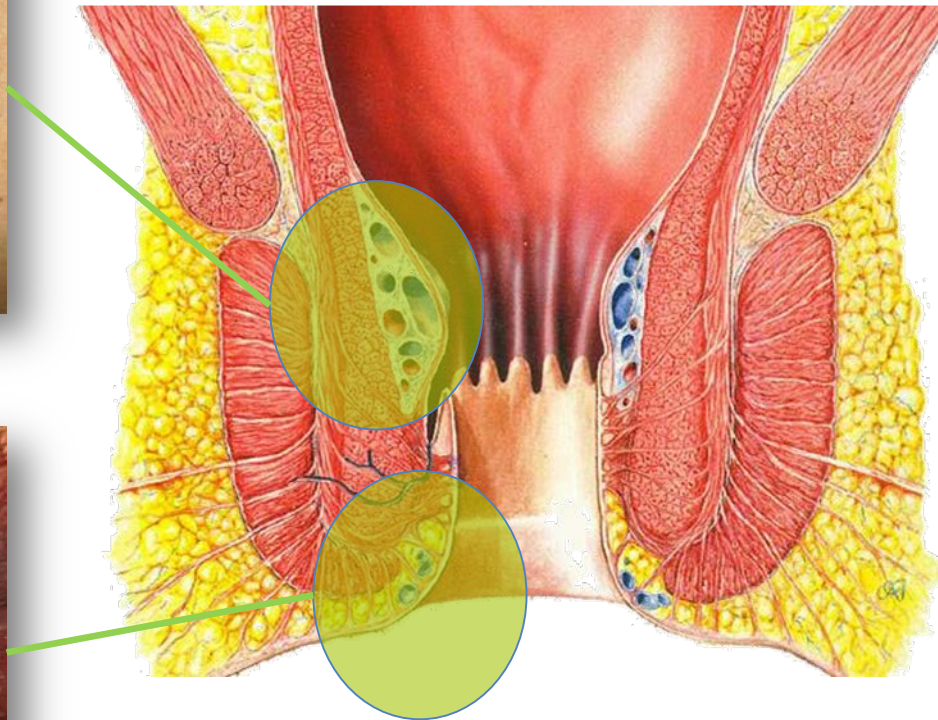


Tumor

- They are acutely thrombosed
 - Trial of initial conservative treatment (antiflammatory drugs, cool it, bedrest)
 - ⇒ If not successful: emergency operation
 - ⇒ If amelioration; early elective operation



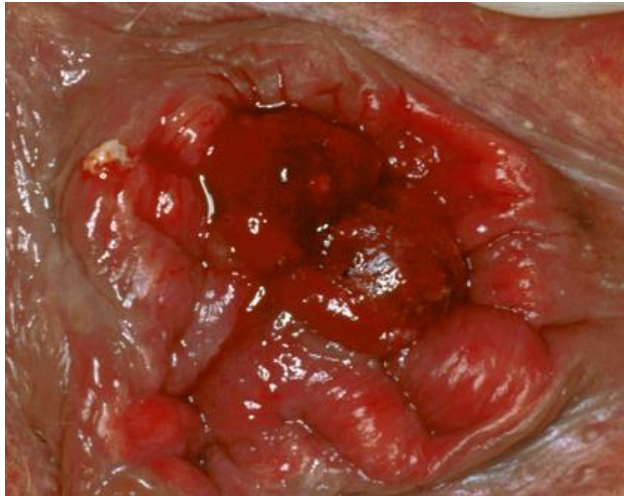
Thrombosis of perianal veins v.s. thrombosed VI°haemorrhoids...



Linea dentata



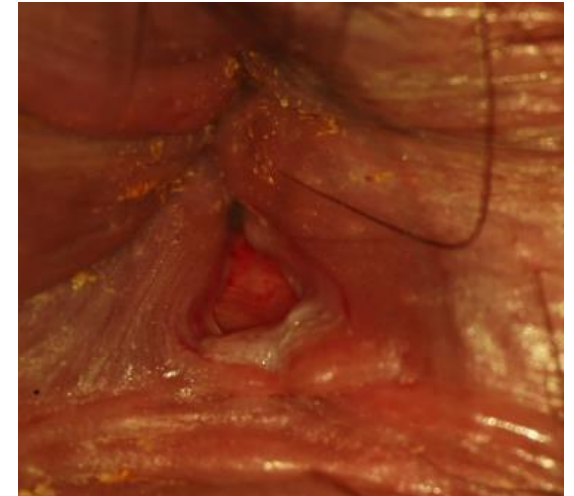
The most common symptom of Haemorrhoids



Haemorrhoids



Cancer (anal & colorectal)



Anal fissure

- Normally bright red blood at or after defecation
- Seen dripping in the toilet bowl or on toilet paper...
- But often not typical!



When in doubt: further investigation is warranted



At the end of the day, outpatient clinics:

Last case; «only» haemorrhoids; evening beer seemed close

- A 48 year old Male
 - referred by external gastroenterologist:
 - ⇒ haemorrhoidal-problems since 2 years
 - Colonoscopy 1.5 years ago:
 - ⇒ Nothing except haemorrhoids
- So I thought:
 - Easy, no problem
 - Let's consent him, and “get him operated”





coloproctology

st. gallen & rorschach

Surprise, surprise:

Haemorrhoids?!

- History at the outpatient's clinic:
 - Passing “dark” blood at defecation
 - Pain, aggravated at defecation and “when sitting”
- ⇒ Already then: Symptoms are not really typical for haemorrhoids...



Haemorrhoids?!

- History at the outpatient's clinic:
 - Passing "dark" blood at defecation
 - Pain, aggravated at defecation and "when sitting"
- Clinical investigation:
 - *Inspection:*
 - ⇒ Normal anus, slight haemorrhoidal prolapse on straining
 - *Digital rectal examination:*
 - ⇒ Tumour dorsal at about 3 cm from anal verge
 - ⇒ Attached, can not be moved from the puborectal muscle
 - ⇒ Normal sphincter function
 - *Rectoscopy:*
 - ⇒ Exulcerated tumour, suggestive for cancer
 - *Endosonography:*
 - ⇒ suspect for infiltration of the sphincters and pelvic floor



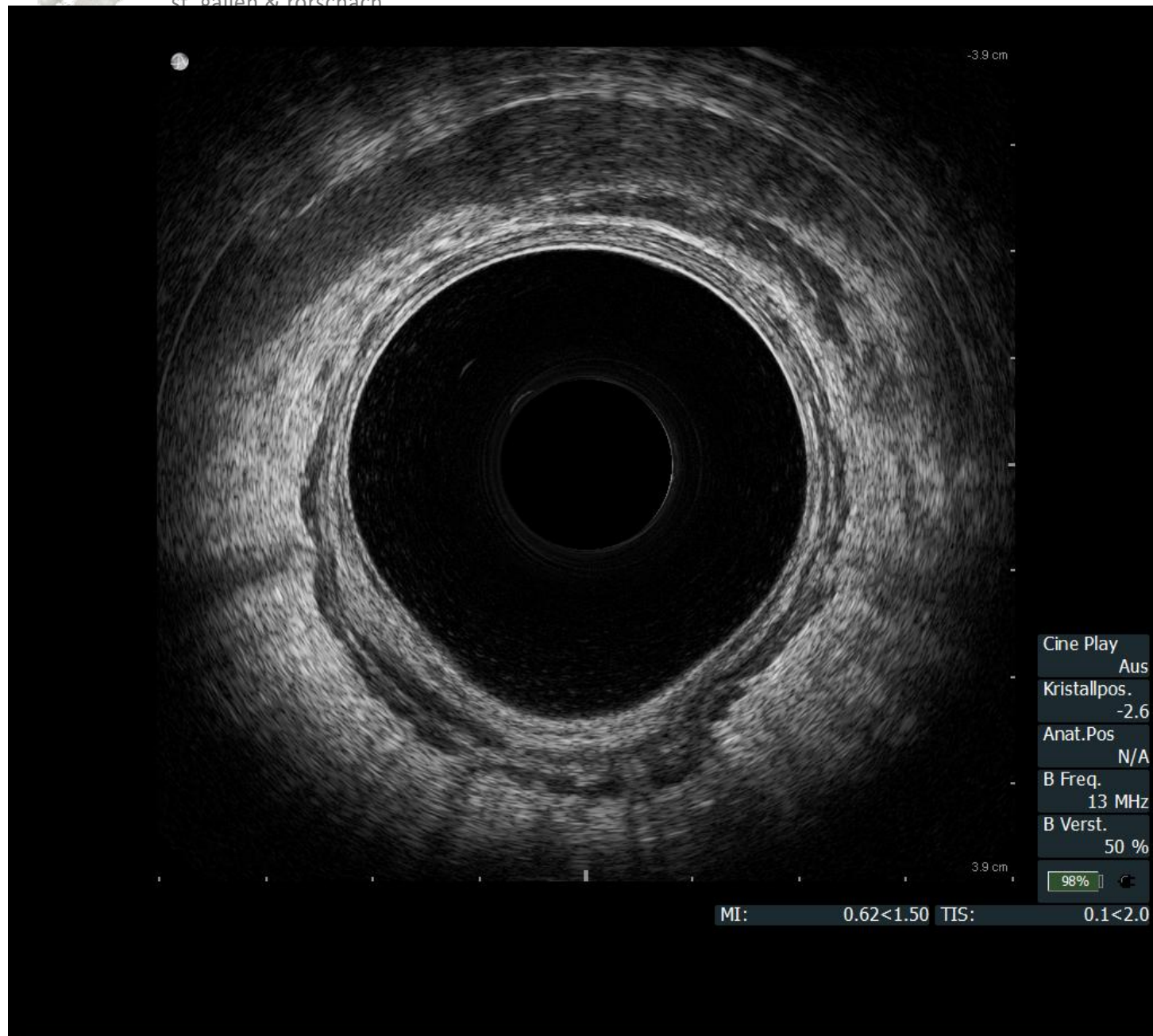
NO haemorrhoids – very low rectal cancer!



coloproctology

st. gallen & rorschach

Surprise, surprise:



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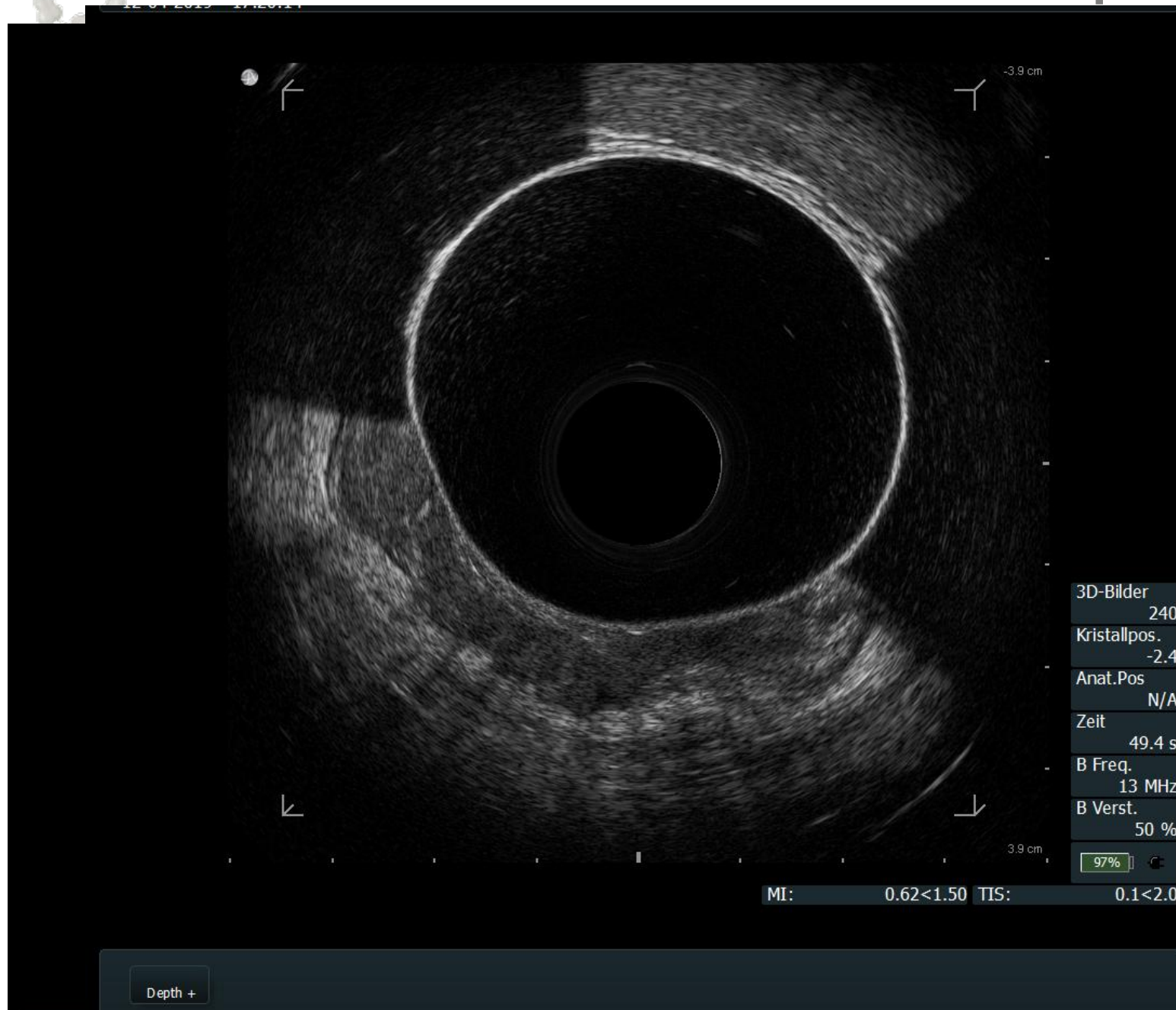
Kantonsspital
St.Gallen

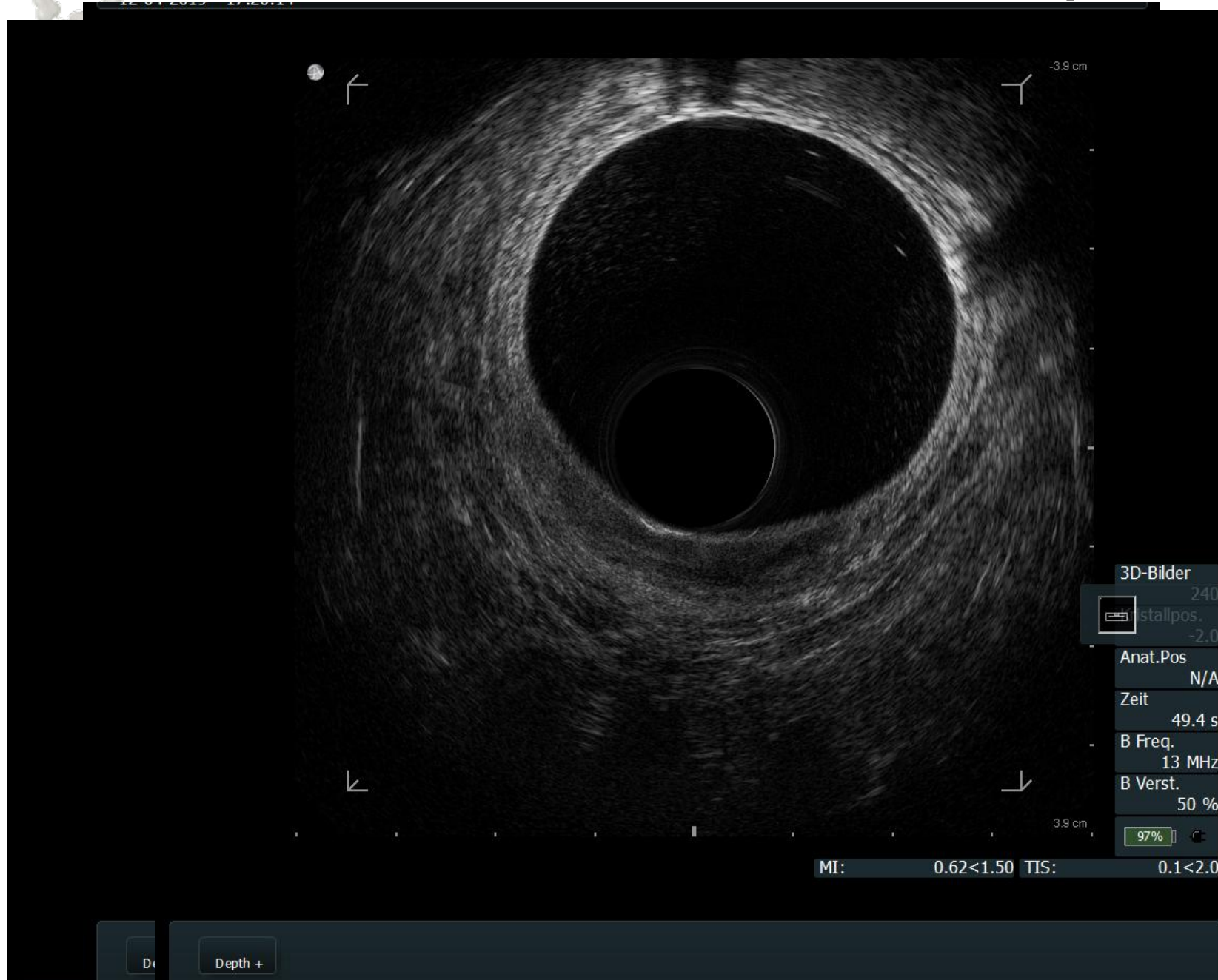


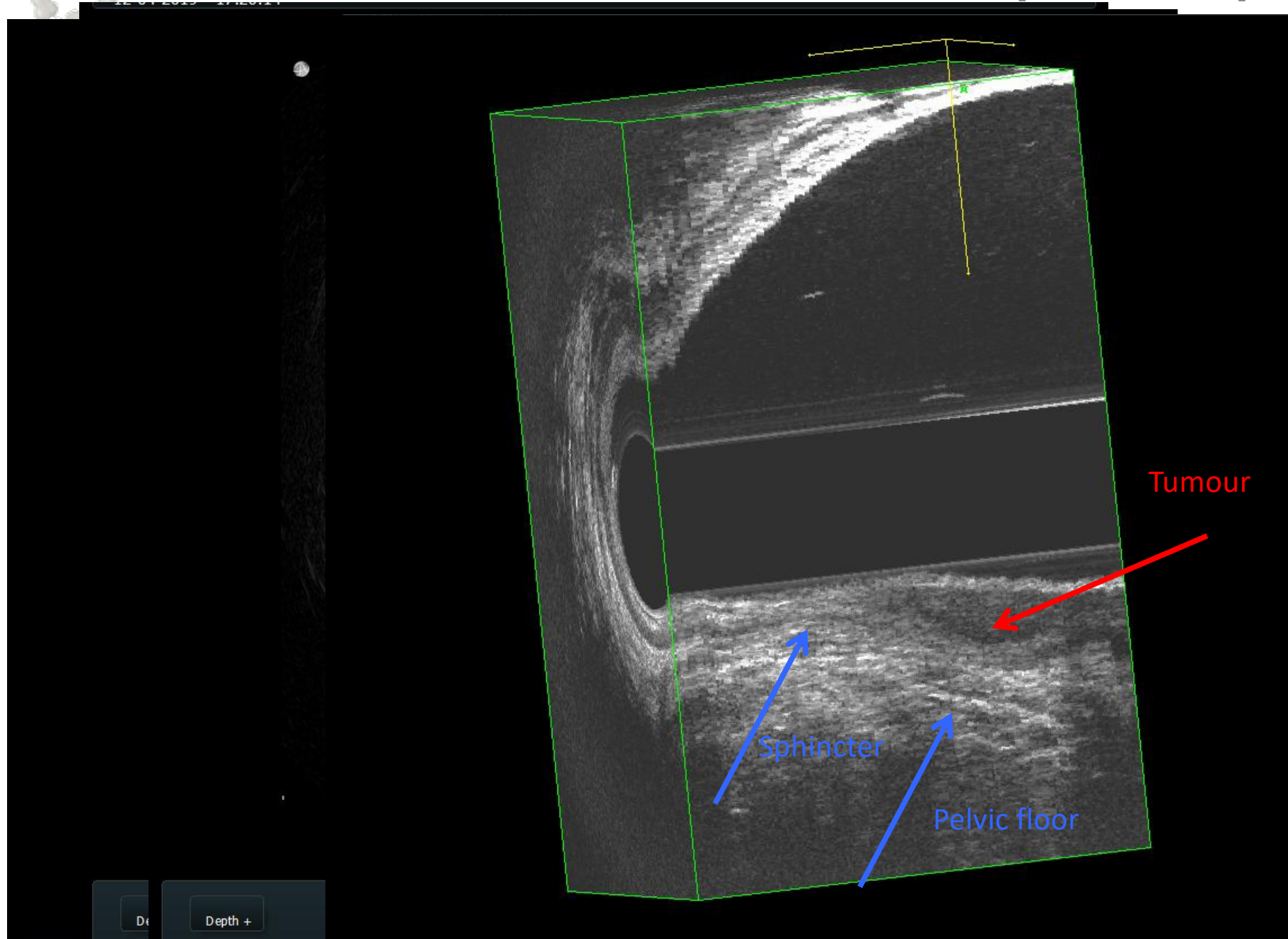


coloproctology


Surprise, surprise:

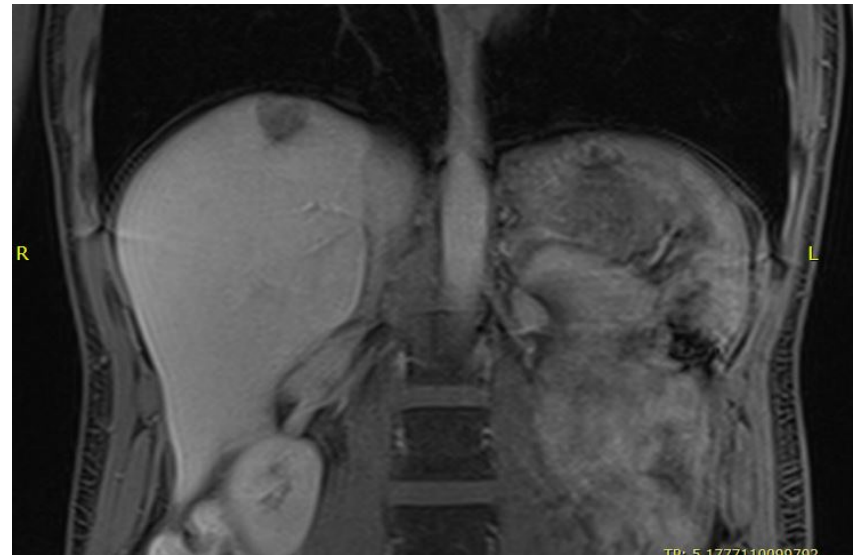






Unfortunately we were right

- Chemoradiation for 6 Weeks; Waiting intervall of 8 Weeks
- Extended, cylindrical abdomino perineal resection: uneventful
- Recovery: uneventful, so far...
- Pathology (5th September 2019):  pyT4; pyN1; spincter infiltrated.....

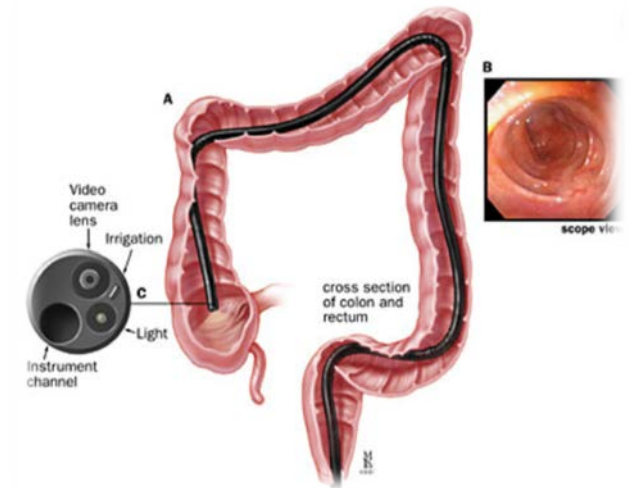


- Diagnosis of metacronous liver metastases
- Shrinking under adjuvante chemotherapy
- Hemihepatectomy....uneventful operation and recovery
- Pathology: R0 resected liver metastases



What investigations should be performed?

- A profound proctological investigation with
 - History taking of symptoms and riskfactor (family: cancer cases? etc.)
 - Anoscopy/rectoscopy:
 - 99% accuracy for diagnosis of haemorrhoids
 - Better than colonoscopy!
- If young, clear diagnosis of haemorrhoids:
 - No risk factors: treat haemorrhoids
 - If symptoms(bleeding) persist go for colonoscopy
- If >50 years, any suspicious findings, or risk factors
 - Do further investigations (Colonoscopy/EUS/radiography)!
 - If other diagnosis is excluded: treat haemorrhoids



1. Jacobs D. Clinical practice. Hemorrhoids. N Engl J Med 2014

2. Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al. Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.



Goligher classification:



Grade I:

No prolapse. Just prominent blood vessels



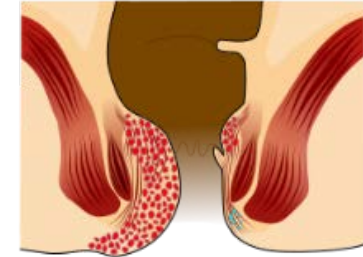
Grade II:

Prolapse upon bearing down but spontaneously reduce



Grade III:

Prolapse upon bearing down and requires manual reduction



Grade IV:

Prolapsed and cannot be manually reduced



Easy to use, easy to remember!



How do we guide our steps for finding the ideal therapy:

- Religious «experts opinions»:
 - Haemorrhoidectomy is a destructive procedure!
 - Haemorrhoidopexy is a reconstructive procedure!
 - Therefore, Haemorrhoidpexy has to be performed...¹

1. *Pacra van. At the meeting of german coloproctologists 2015*



coloproctology

st. gallen & rorschach

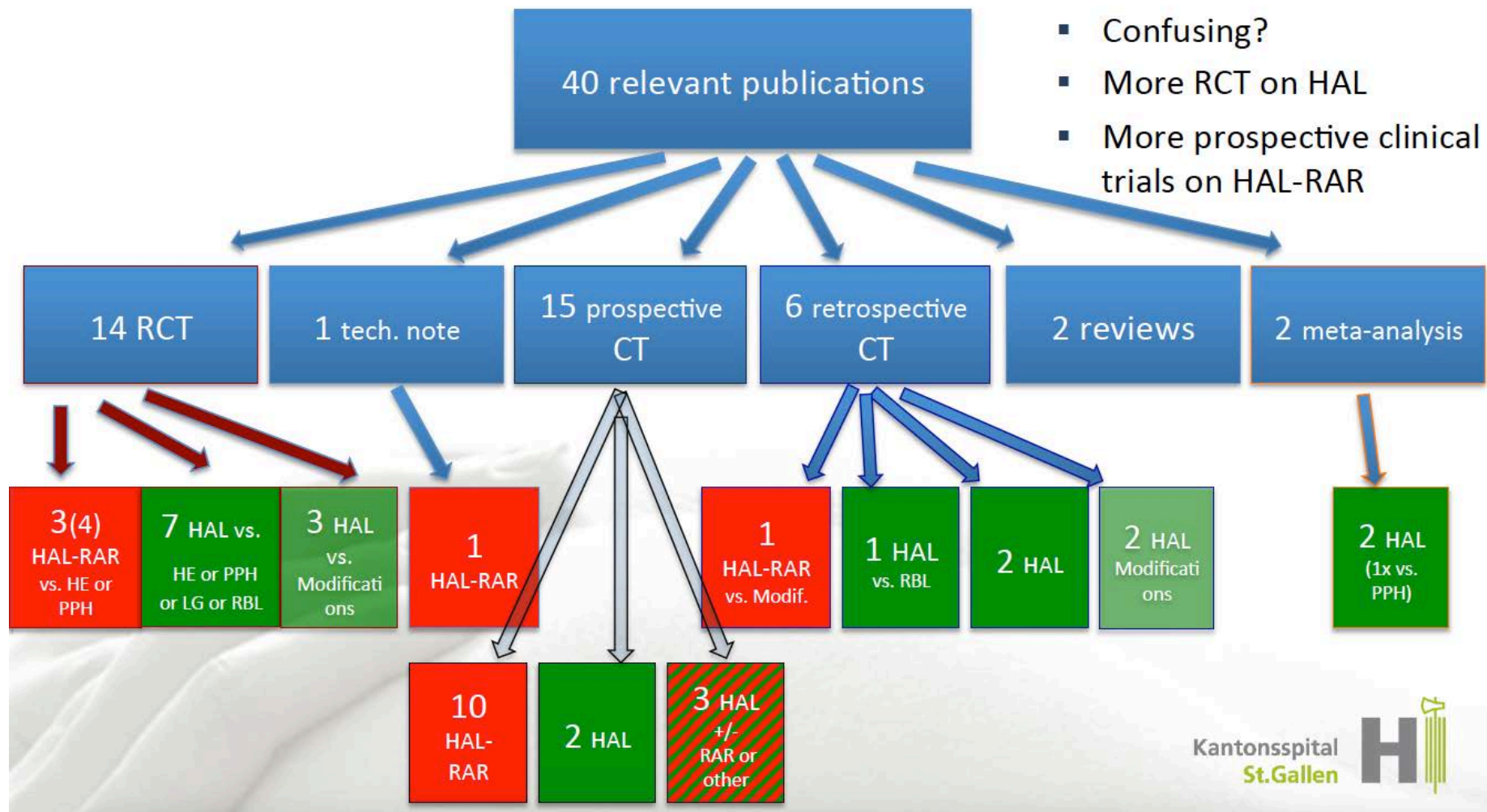
Therapy: Outcome-Parameter

How do we guide our steps for finding the ideal therapy:

- No we go for evidence based surgery!



Method: review of the literature





How do we guide our steps for finding the ideal therapy:

Compare:

- How efficient is the treatment
 - Prolapse cured?
 - Recurrences?
 - Persisting haemorrhoidal symptoms?
- Consequences of the treatment
 - postoperative pain
 - Open wounds?
 - Complications?
 - Negative longtime sequelae

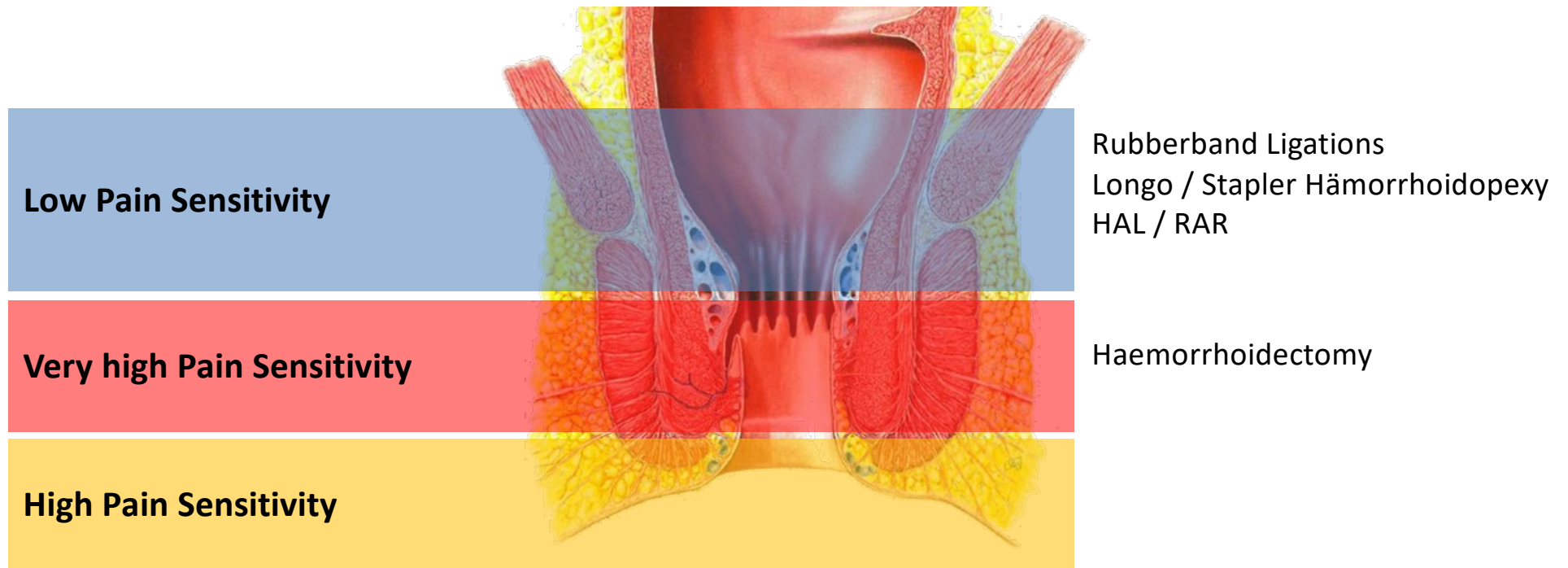


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st. gallen & rorschach

Therapy: Postoperative Pain....

Classical Haemorrhoidectomy – really painful:





Haemorrhoidal artery ligation (HAL)

What is HAL, how is it done, results?

Introduced by Morinaga 1995¹

Different tools and providers

Ligation of strong arteries in the lower rectum

Reduction of blood supply to the hemorrhoids

Detection using a doppler probe

Ideally two “circles”

6 to 10 “z”-ligations; 5/8 suture; “no main arteries”

Symptom-regression correlates with no. of ligatures²



1. Morinaga K et al. *Am J Gastroenterol.* 1995; 2. Roka S et al. *Eur Surg.* 2013
3. Walega P et al. *Surgical endoscopy* 2008 ; 4. Giordano P et al. *Diseases of the colon and rectum* 2009
5. Brown S, Tiernan J, Biggs K, et al. The HubBLE Trial: *Health Technol Assess* 2016



Haemorrhoidal artery ligation (HAL)

What is HAL, how is it done, results?



- Good efficiency in II° Haemorrhoids^{3,4}
- High recurrence rate in >II° Haemorrhoids^{3,4}
- Less recurrence in II° Haemorrhoids than Rubber band ligation⁵
- No open wounds
- Low pain^{3,4}


⇒ **Ideal procedure for II° Haemorrhoids**

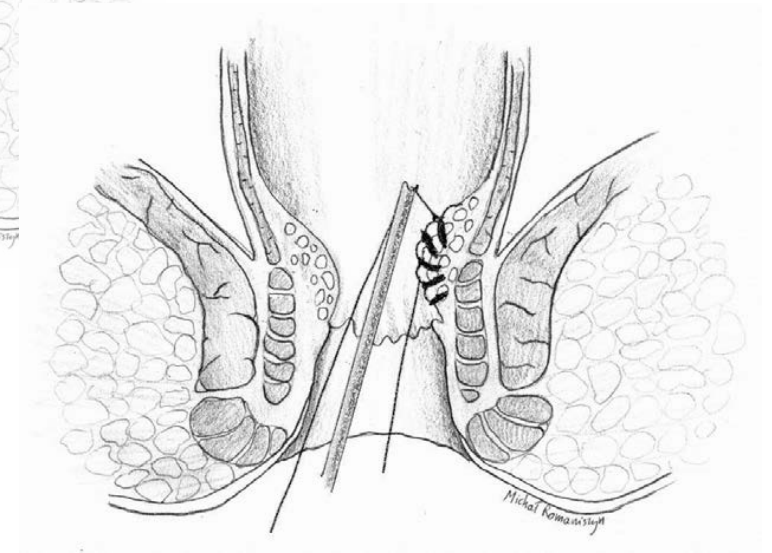
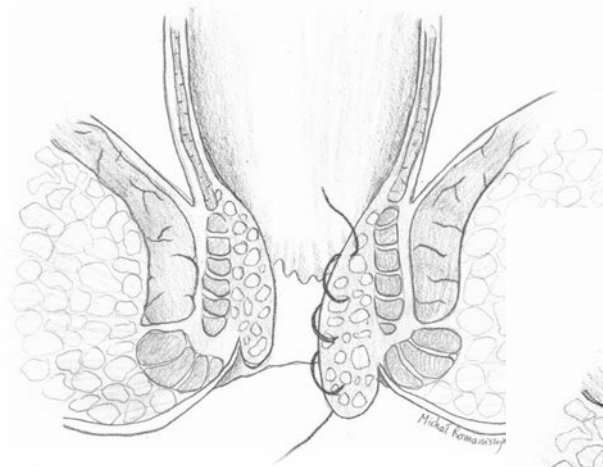
1. Morinaga K et al. *Am J Gastroenterol.* 1995; 2. Roka S et al. *Eur Surg.* 2013
3. Walega P et al. *Surgical endoscopy* 2008 ; 4. Giordano P et al. *Diseases of the colon and rectum* 2009
5. Brown S, Tiernan J, Biggs K, et al. The HubBLE Trial: *Health Technol Assess* 2016



HAL & RectoAnalRepair (HAL-RAR)

HAL & RectoAnalRepair:

- recto anal repair
- Primary „HAL“ is conducted
- Biggest prolapsing cushions  RAR
- 3(2-4) „running suture“ from cranial to distal
- 5mm above linea dentata „stop“
- Lifting distal tissue by tying to the proximal „entry point“ of the suture





HAL & RectoAnalRepair (HAL-RAR)

HAL & RectoAnalRepair:

Results:

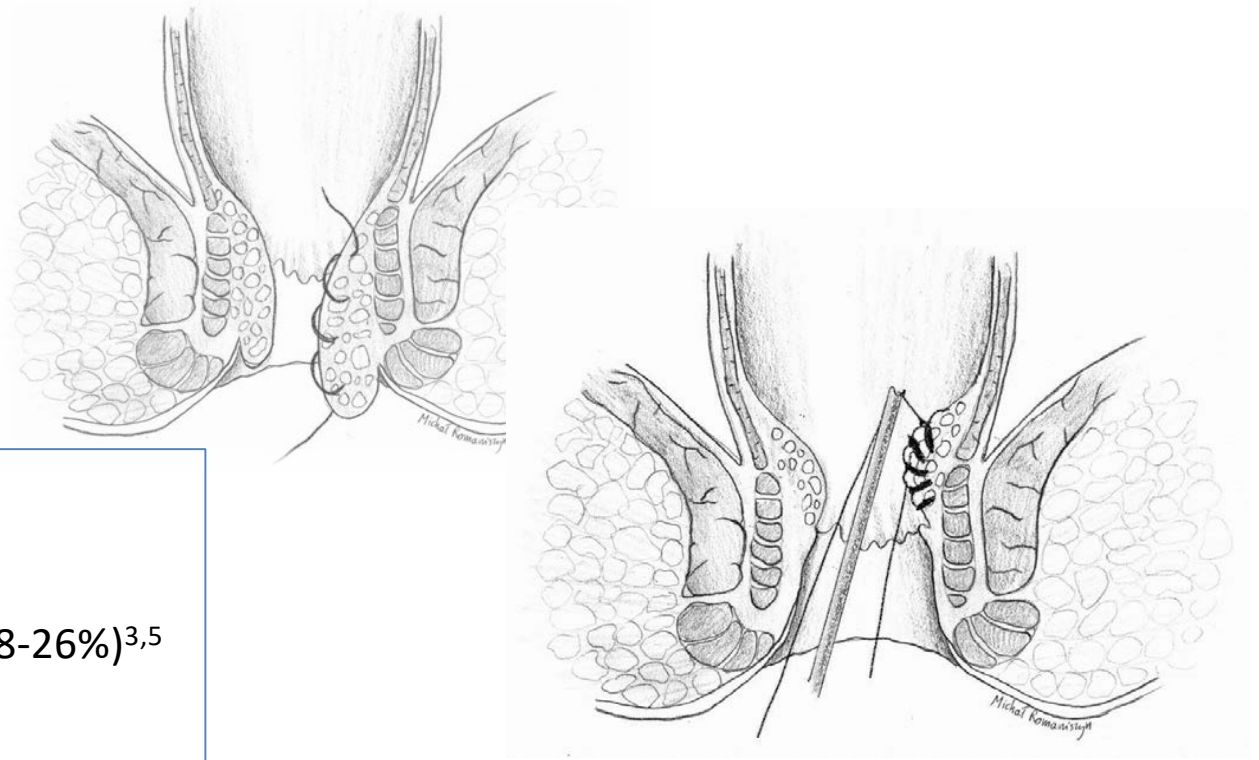
HAL-RAR:

- Effective in (II)III° > 92%^{3,4}
- Recurrent prolapses in IV° (18-26%)^{3,5}

HAL & HAL-RAR:

- No resection; complication rates ↓ (5-8%)^{4,6}
- Long term sequelae ↓ (Incontinence 0-1%; Stenosis 0-1%)^{4,6}
- Can be redone without problems or elevated risk⁴

⇒ **Good procedure for III° Haemorrhoids!**



[3] Giordano P et al. Diseases of the colon and rectum 2009


[4] Roka S et al. European surgery 2013 [5] Zagriadskii EA. Khirurgiia 2013

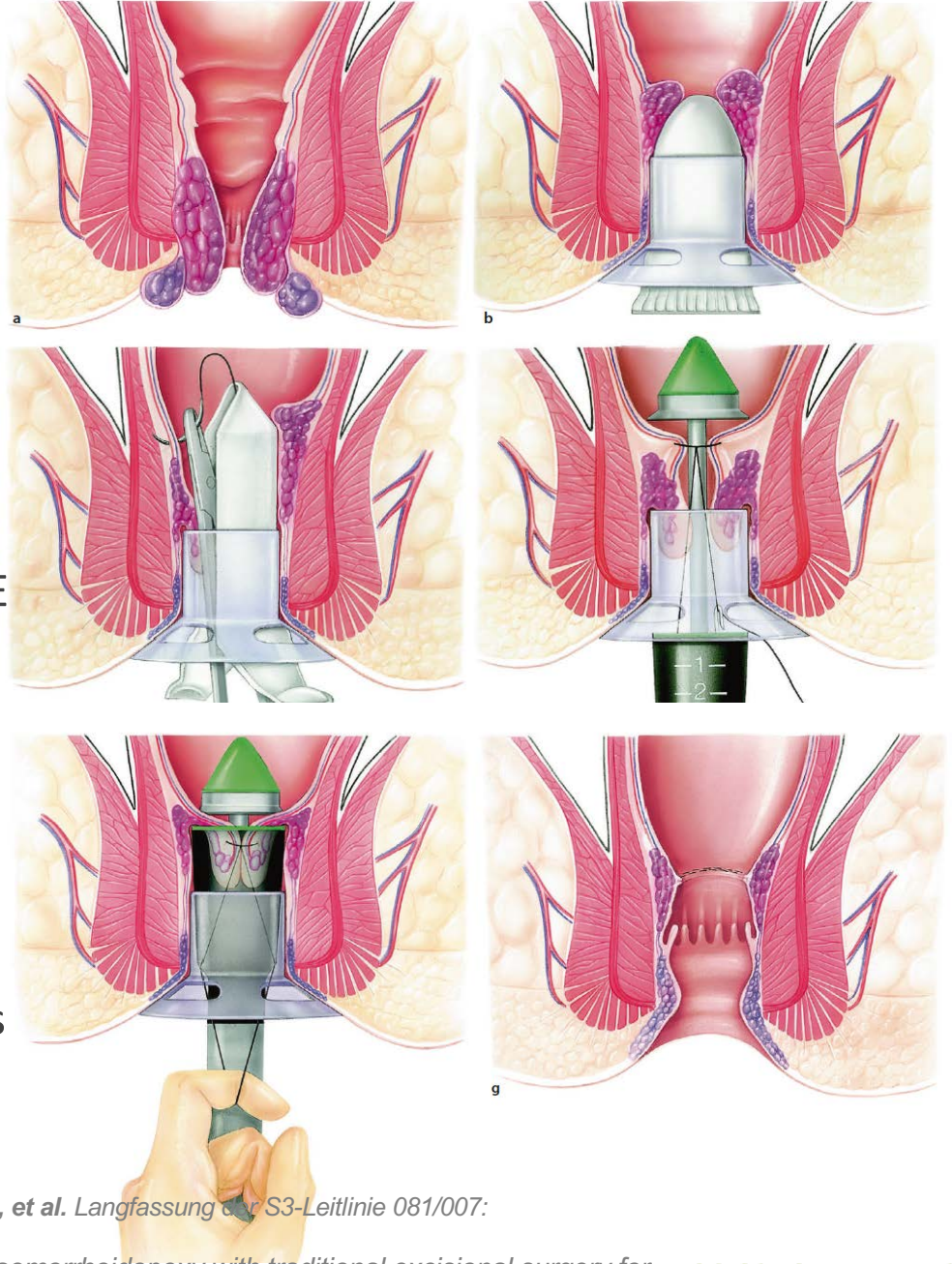
[6] Lucarelli P et al. Annals of the Royal College of Surgeons of England 2013.



Stapler-Haemorrhoidopexy (Longo)

Is Hämmorrhoidopexy still an option?

- Has been developed in the 1990..
 - Good in circular prolapses^{1,2}
 - Less pain, better QoL till 3w.³
 - Good in ODS Patients²
 - **But:** More recurrences than HE
 - Urgency.../Incontinence ³
 - Not more complications³
 - But rare **severe** compl./longtime sequelae^{1,2}
- Select patients well:
III°/ODS/circular haemorrhoids
- And consent them carefully



1. Jacobs D. Clinical practice. Hemorrhoids. N Engl J Med 2014

2. Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al. Langfassung der S3-Leitlinie 081/007: Hämmorrhoidalleiden 2019.

3. Watson AJ, Hudson J, Wood J, et al. Comparison of stapled haemorrhoidopexy with traditional excisional surgery for haemorrhoidal disease (eTHoS): a pragmatic, multicentre, randomised controlled trial. Lancet 2016



Haemorrhoidectomy new devices (e.g. Ligasure)

- 2 Metaanalysis HE against HE with Ligasure:

	Studies	Patients	Less Pain	Success
Nienhuijs. ¹	12	1142	Ligasure (-2 on VAS) Significant at 1 day/week; les diff. 2 weeks	equal
Milito ²	8	608	Ligasure p<0.001	Better in Ligasure (?) p<0.024 (stenosis/relapse)



- HE mit Ligasure vs. Stapler:(Metaanalysis)

	Studies	Patients	Less Pain	Success
Yang ³	5	397	equal (p=0.23)	Ligasure (1.2 vs. 7.5%) P=0.003

- A lot better in IV° Haemorrhoids than HAL-RAR and Stapler(5%vs.20%)!^{4,5}**

[1] Nienhuijs S, de Hingh I. Cochrane Database Syst Rev. 2009 [2] Milito G et al. Colorectal Dis. 2010
[3] Yang J et al. World J Gastroenterol. 2013 [4] Jacobs D. Clinical practice. Hemorrhoids. N Engl J Med 2014
[5] Joos AK Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.

Whats best in III°Haemorrhoids?

What's better for III° hemorrhoids?

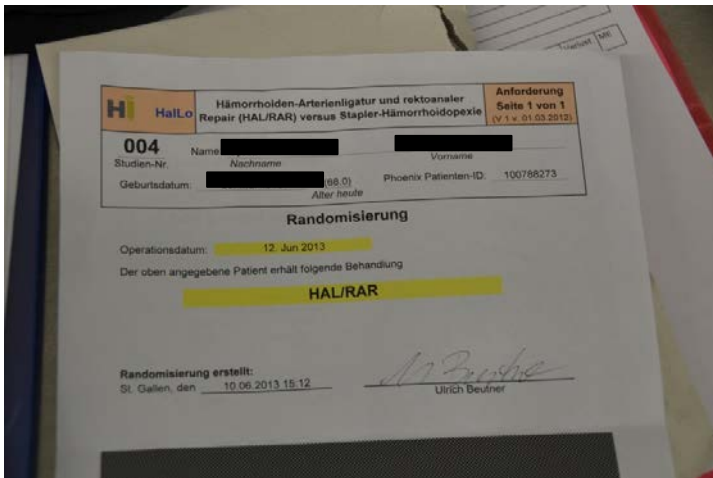
HAL-RAR (probably less pain than PPH/Ligasure)

PPH (probably less recurrences than HAL-RAR)

HE (Ligasure) (probably best treatment for „prolapse“: but open wounds)



Randomized controlled trial: HalLo(recruiting since 5 years)



The image shows a randomization form for the HalLo trial. The form is titled 'Hämmorrhoiden-Arterienligatur und rektosaler Repair (HAL/RAR) versus Stapler-Hämorrhoidopexie'. It includes fields for patient information: Studien-Nr. 004, Name, Nachname, Vorname, Geburtsdatum, Alter heute, and Phoenix Patienten-ID: 100766273. The form also indicates the randomization date as 12. Jun 2013 and the treatment assigned to the patient as HAL/RAR. The form is signed by Ulrich Beutner on 10.06.2013.

Primary endpoint: pain

Secondary: complications/recurrence

42 patients/arm; Follow-up 4 weeks; 12/24



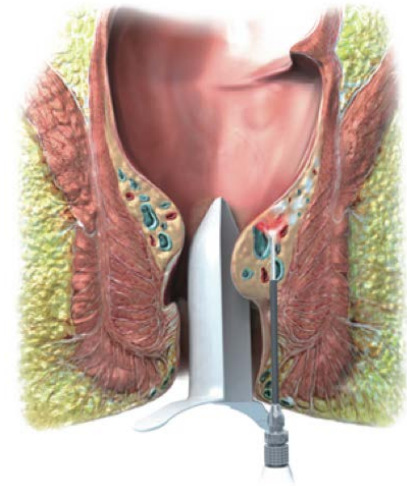
New Techniques?

New techniques

What's there?

- Different procedures with the Laser
- Embolisation over the a. mesenterica inferior(Emborrhoid)
- Haemorrhoidopexie with bigger staplers/STARR
- Operation with radiofrequenz ablation

→ There is not enough evidence, to recommend any of the new procedures



1. **Crea N, Pata G, Lippa M, Chiesa D, Gregorini ME, Gandolfi P.** Hemorrhoidal laser procedure: short- and long-term results from a prospective study. *American journal of surgery* 2014
2. **Joos AK, Arnold R, Borschitz T, Brandt J, J. Jongen J, Krammer H, et al.** Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.



Possible evidence based algorithm

I°

RBL or topic treatment

II°

HAL/or RBL if small

III°

HAL-RAR or PPH*; with skin tags HE-Ligasure

IV°

HE-Ligasure

High-risk
patients:

HAL-RAR?

Recurrence
(might) ↑

Risk ↓



*: or RCT: HalLo



How are haemorrhoidal symptoms and QoL after operative treatment?

- In a RCT after 2 years:
 - ⇒ After haemorrhoidectomy(HE), as well as after Staplerhaemorrhoidopexy(SH):
 - Both, haemorrhoidal symptoms and QoL were significantly improved
 - ⇒ Better short time recovery after SH;
 - ⇒ better QoL/less Symptoms after HE at 2y

⇒ **Yes!**

Haemorrhoid symptom score					
Baseline	10.8 (4.7); 370	10.4 (4.7); 370
6 weeks	8.2 (5.1); 288	7.9 (5.0); 291	0.15	(-0.60 to 0.91)	0.69
12 months	6.6 (5.1); 263	4.3 (4.3); 243	2.09	(1.28 to 2.90)	<0.0001
24 months	6.4 (5.0); 250	4.8 (4.4); 240	1.46	(0.64 to 2.28)	0.0005
SF-36					
Physical component summary					
Baseline	48.5 (9.4); 380	48.8 (9.5); 377
6 weeks	48.2 (10.4); 294	48.9 (9.2); 293	-0.58	(-1.77 to 0.61)	0.34
12 months	49.7 (10.1); 265	51.2 (9.4); 255	-1.79	(-3.06 to -0.51)	0.0059
24 months	50.3 (10.1); 250	51.1 (9.4); 234	-1.15	(-2.47 to 0.16)	0.0860
Mental component summary					
Baseline	48.8 (11.7); 380	49.6 (11.0); 377
6 weeks	47.3 (12.7); 294	48.7 (11.7); 293	-0.55	(-2.07 to 0.97)	0.48
12 months	48.8 (12.2); 265	51.2 (10.4); 255	-1.71	(-3.34 to -0.08)	0.0396
24 months	49.8 (11.2); 250	51.0 (10.9); 234	-0.89	(-2.57 to 0.80)	0.30



Treatment of haemorrhoids: is worthwhile?

Porträt von Napoleon.

operative treatment?



Staplerhaemorrhoidopexy(SH):
were significantly improved

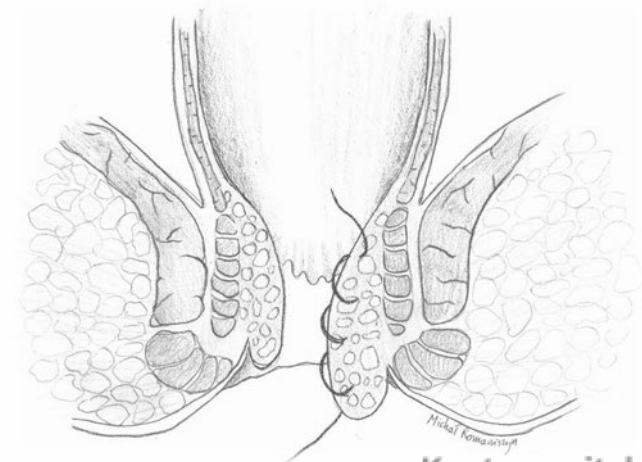
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6 weeks	48.2 (10.4); 294	48.9 (9.2); 293	-0.58	(-1.77 to 0.61)	0.34
12 months	49.7 (10.1); 265	51.2 (9.4); 255	-1.79	(-3.06 to -0.51)	0.0059
24 months	50.3 (10.1); 250	51.1 (9.4); 234	-1.15	(-2.47 to 0.16)	0.0860
Mental component summary					
Baseline	48.8 (11.7); 380	49.6 (11.0); 377
6 weeks	47.3 (12.7); 294	48.7 (11.7); 293	-0.55	(-2.07 to 0.97)	0.48
12 months	48.8 (12.2); 265	51.2 (10.4); 255	-1.71	(-3.34 to -0.08)	0.0396
24 months	49.8 (11.2); 250	51.0 (10.9); 234	-0.89	(-2.57 to 0.80)	0.30

1. *Watson AJ, Hudson J, Wood J, et al. Comparison of stapled haemorrhoidopexy with traditional excisional surgery for haemorrhoidal disease (eTHoS): a pragmatic, multicentre, randomised controlled trial. Lancet 2016*



Take home messages

- Haemorrhoids are common – but not everything is a Haemorrhoid
- Important to make a clear diagnosis with a simple proctological investigation
- When in doubt: Colonoscopy/EUA/Biopsy: don't miss a Cancer?!
- Treatment should be tailored to patient and grading of haemorrhoids
- In symptomatic haemorrhoids: the treatment is simple, successful and worthwhile





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Thank you for your attention!

For further information:

- Joos AK, Arnold R, Borschitz T, et al. Langfassung der S3-Leitlinie 081/007: Hämorrhoidalleiden 2019.
https://www.awmf.org/uploads/tx_szleitlinien/081-007l_S3_Haemorrhoidalleiden_2019-07_01.pdf
- <https://www.kssg.ch/chirurgie/leistungsangebot/haemorrhoiden>

