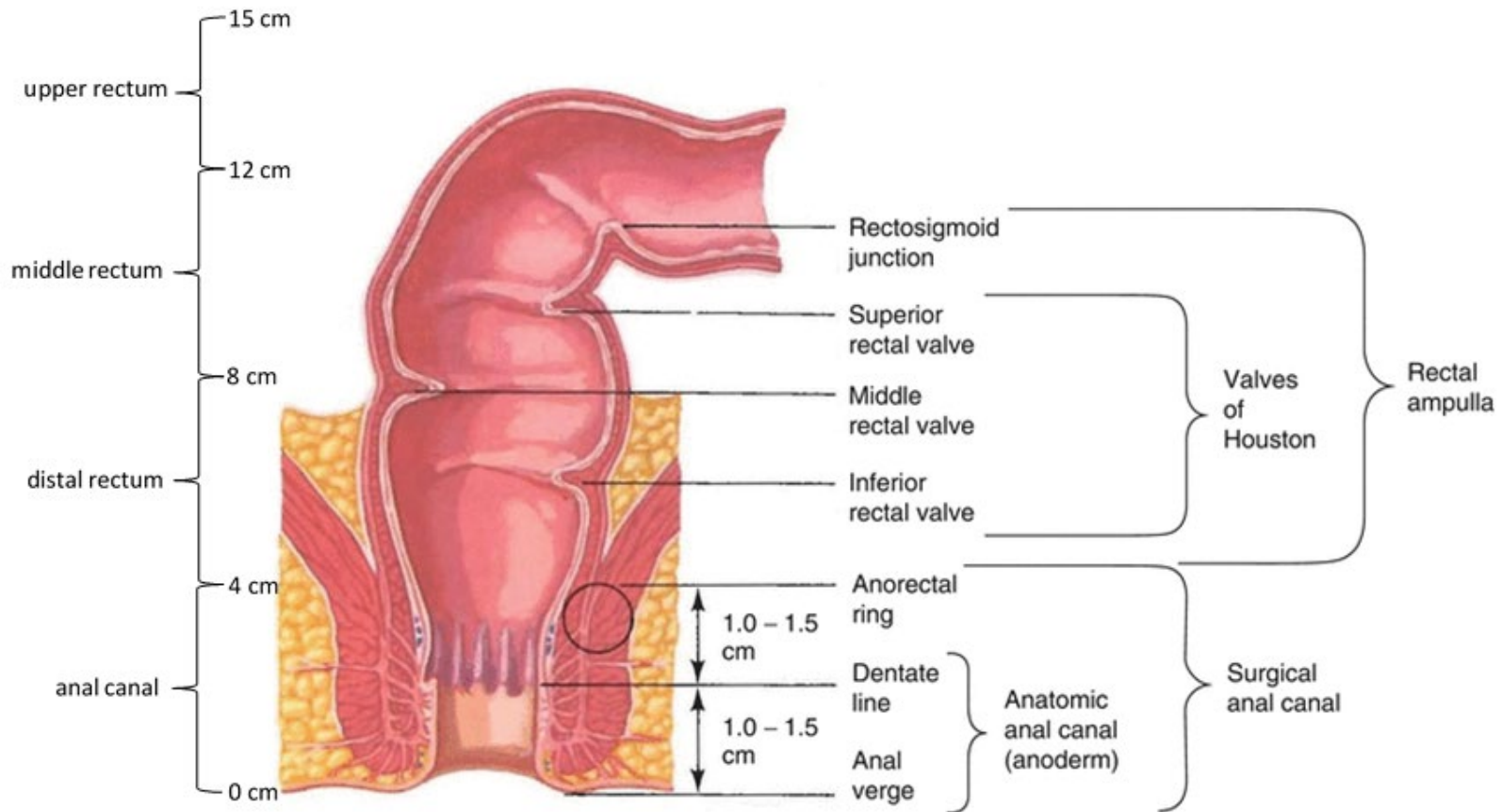


Bäckenbottens anatomi

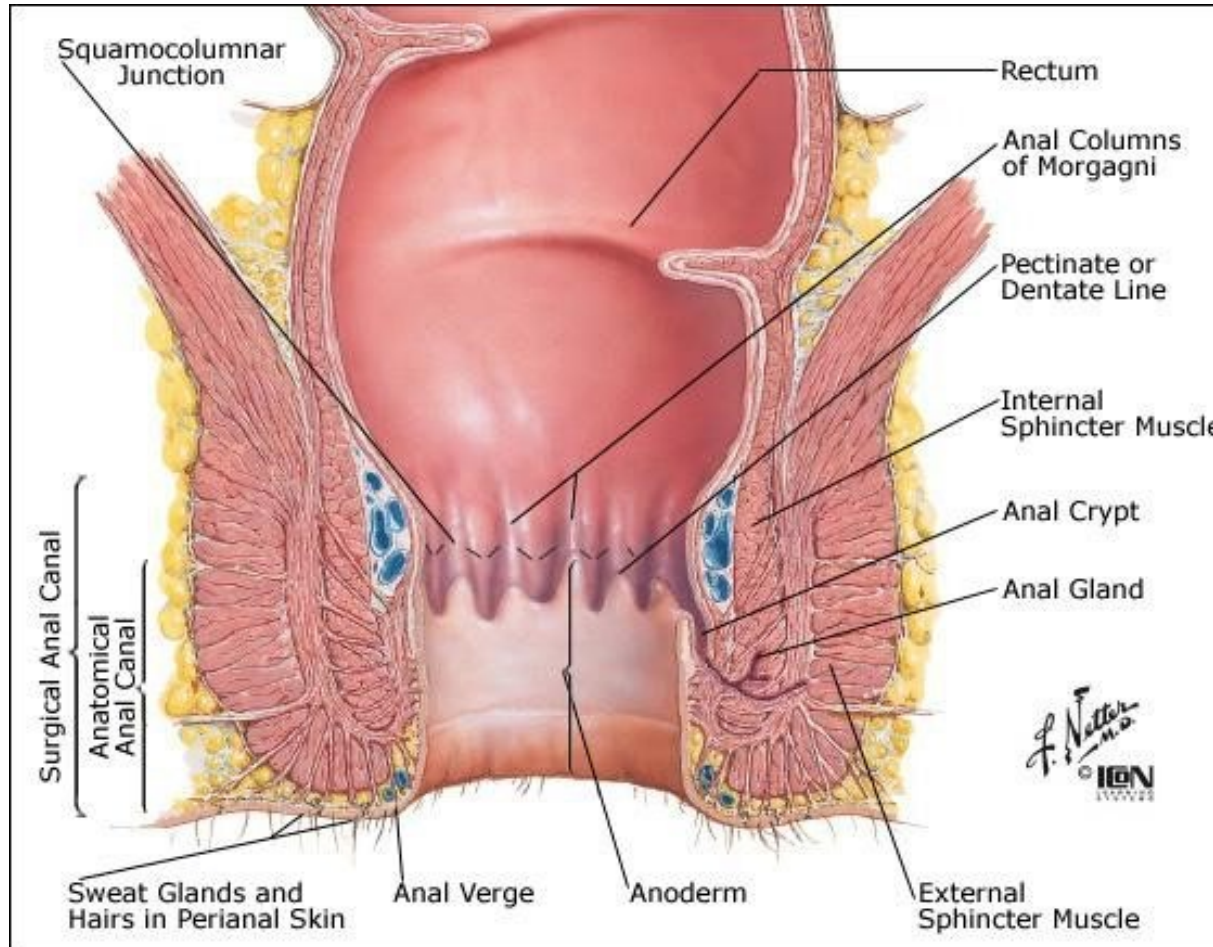
Hemorroider

Karin Westberg
Kirurgkliniken, DS
KUB-kurs 221018

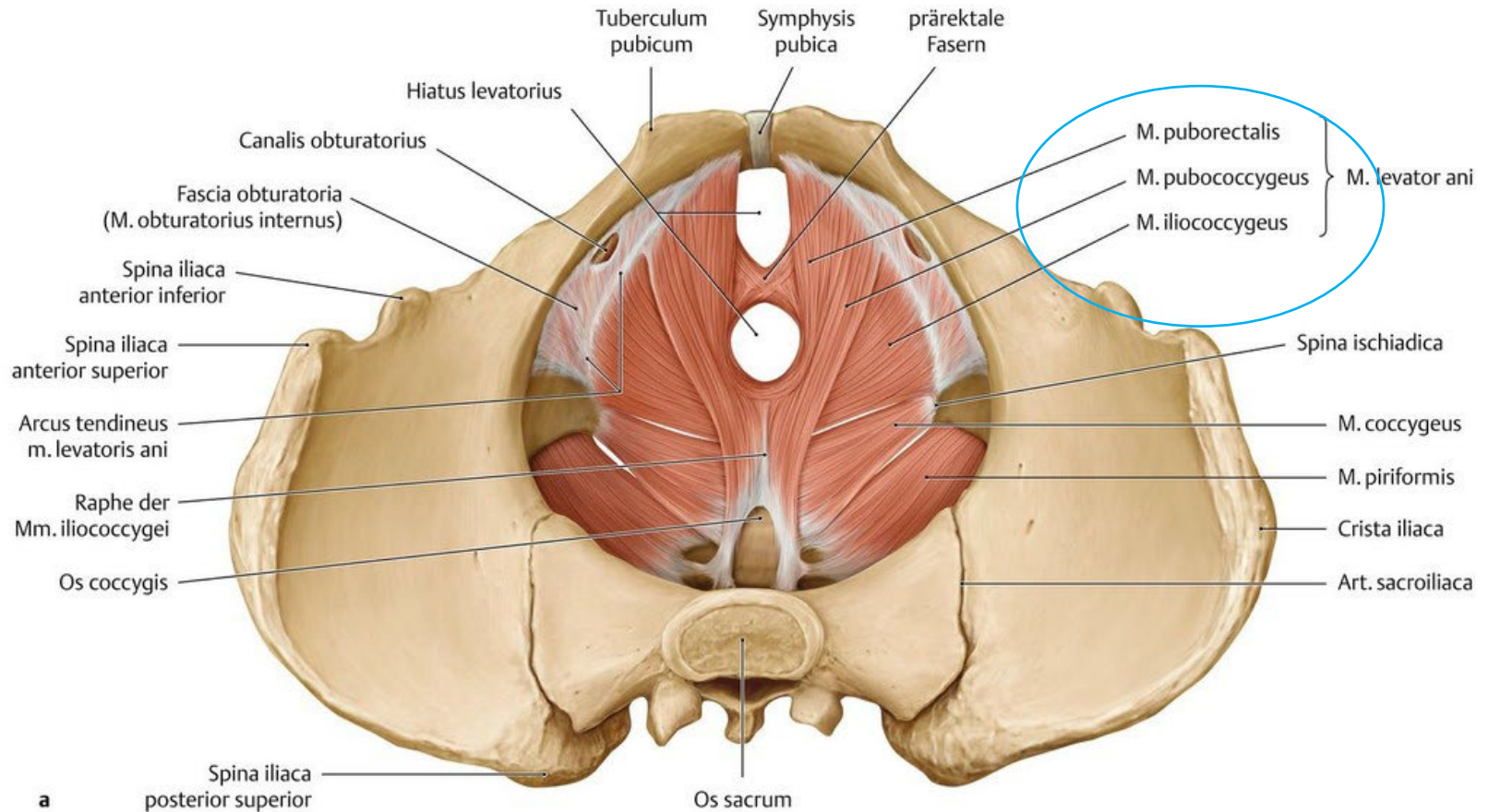
Analkanalen



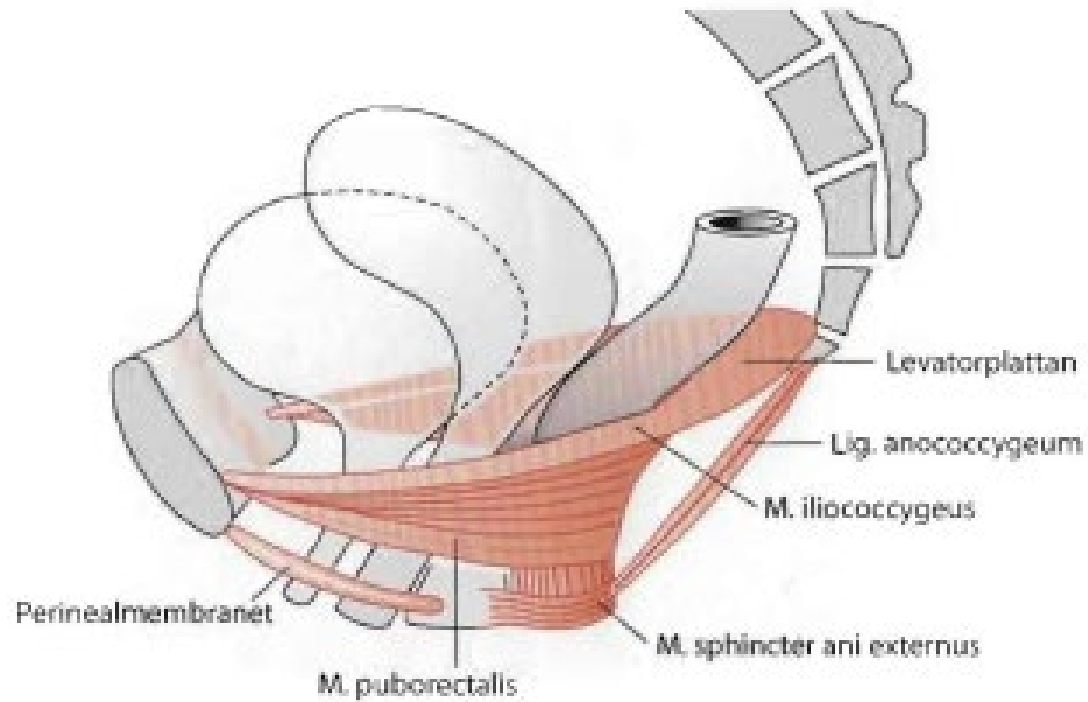
Muskulatur



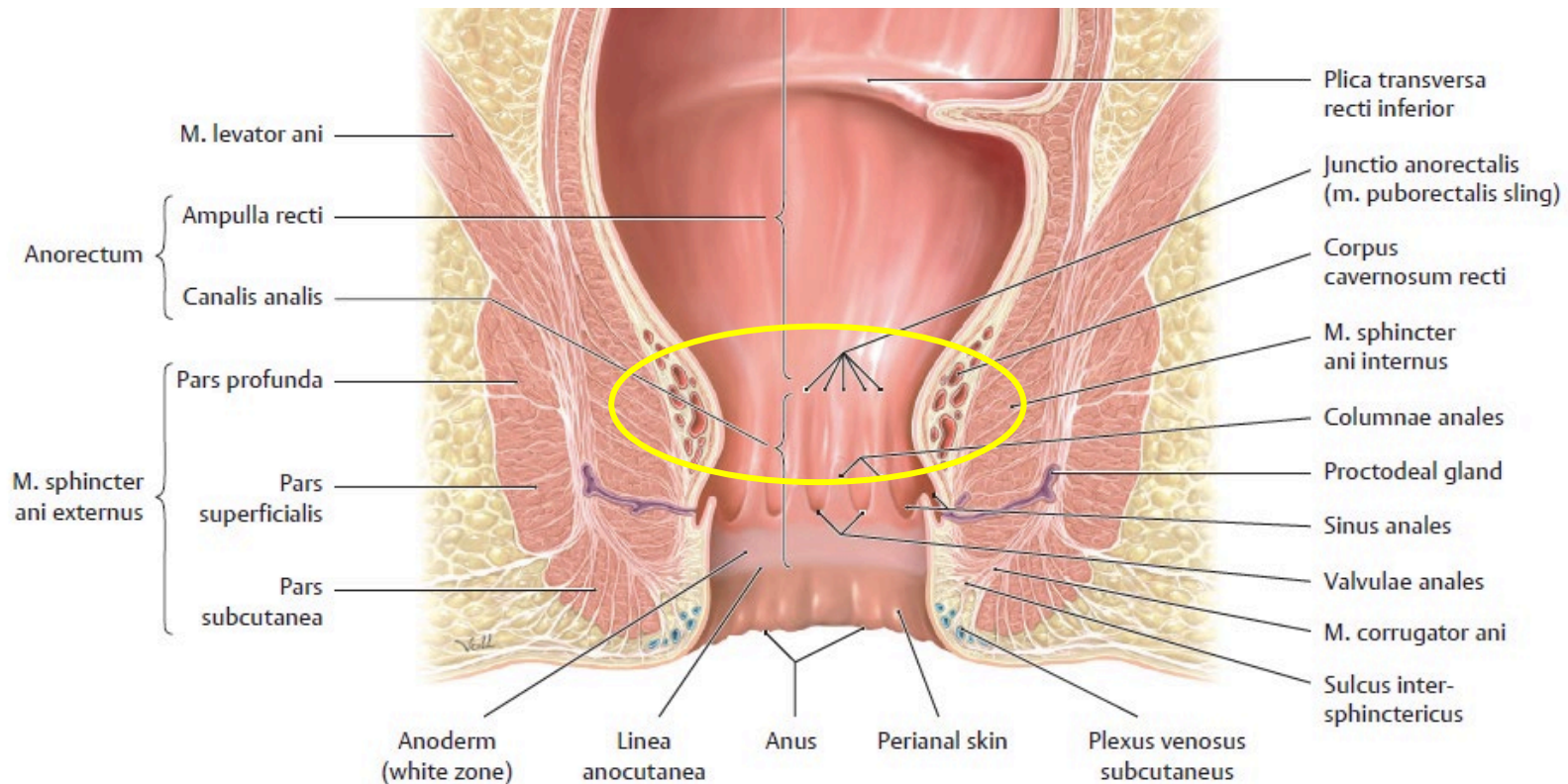
Bäckenbotten



M Puborectalis



Hemorroider

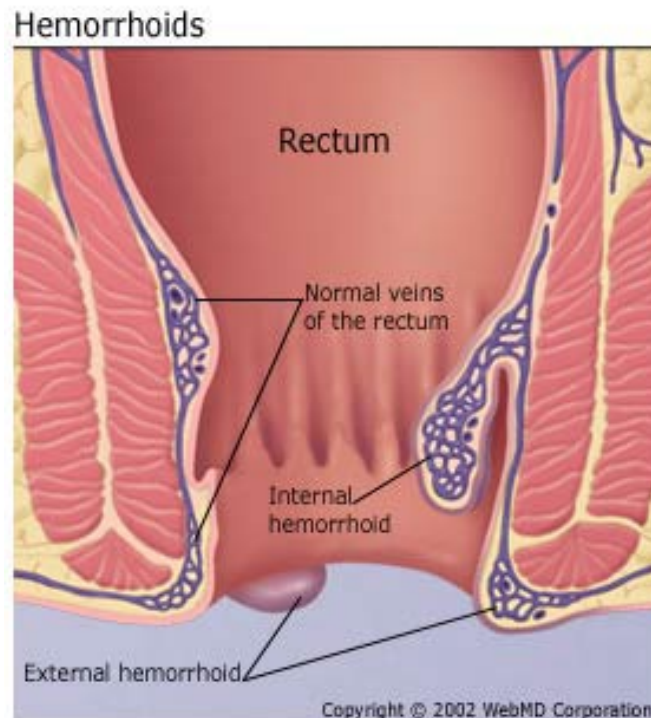


Patofysiologi

- 1. Prolaps av transitionszonen**
- 2. Ökad sfinktertonus**
- 3. Störning i dränage av corpus cavernosa**

Inre och yttre hemorrojder?

- Inre hemorrojder är arteriovenösa förbindelser ovan linea dentata och är slemhinnebeklädda.
- Yttre hemorrojder utgörs av venöst dränage av inre hemorrojder och är täckta med skivepitel.



Gradering enligt Goligher

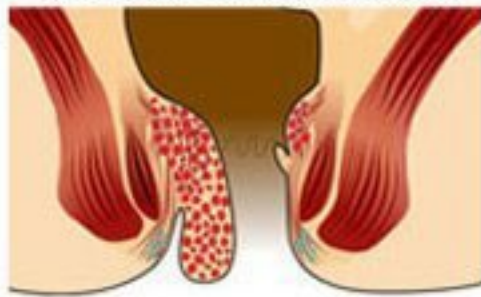
1st Degree: No Prolapse.
Just prominent blood vessels



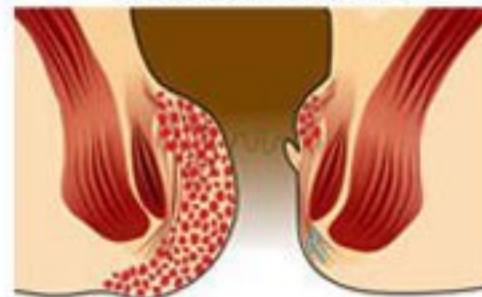
2nd Degree: Prolapse upon bearing down but spontaneously reduced.



3rd Degree: Prolapse upon bearing down and requires manual reduction.



4th Degree: Prolapsed and cannot be manually reduced.



Grundläggande behandling

- **Fiberrik diet**
- **Mjukgörande medel (Movicol etc.)**
- **Rikligt med vätska**
- **Undvika krystning**

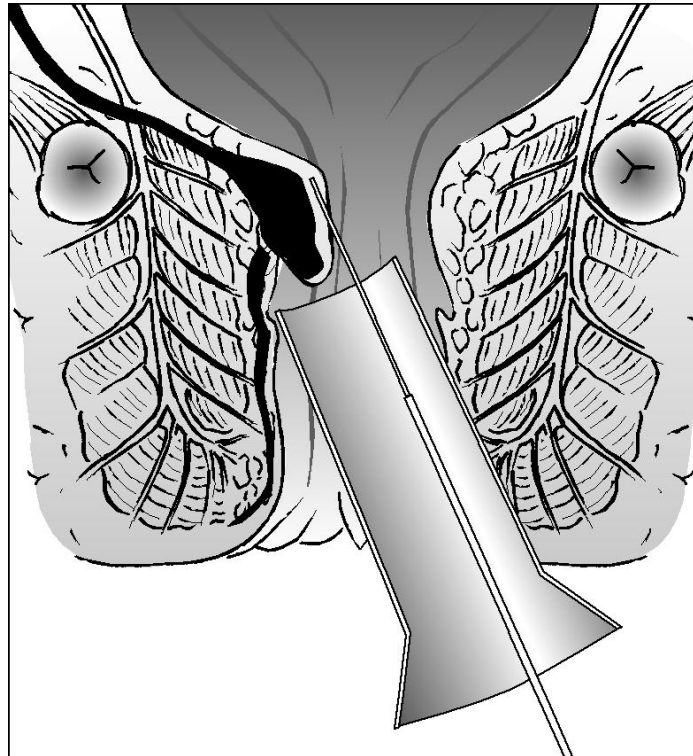
Konservativ behandling

- **Lokala steroider (Xyloproct, Sheriproct etc.)**
- **NSAID**
- **Flavonoider**

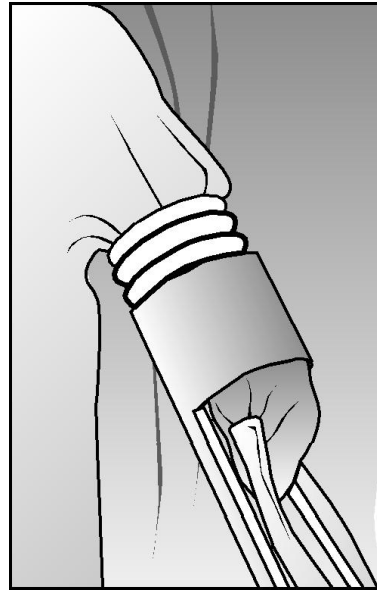
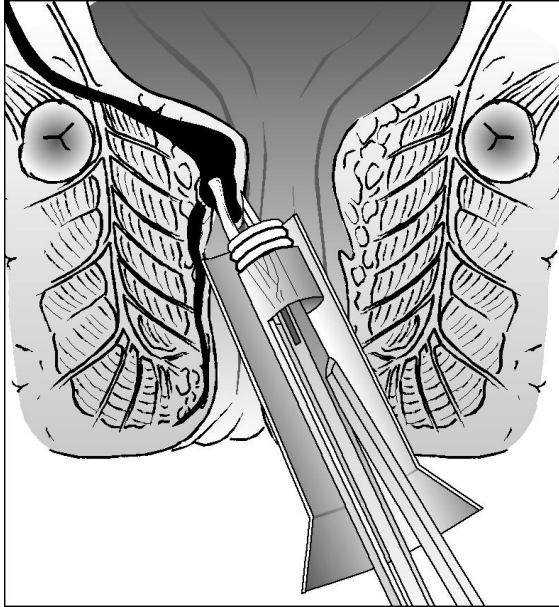
Kirurgisk behandling

- **Injektionsbehandling**
- **Gummibandsligatur**
- **THD**
- **Hemorroidektomi ad modum Milligan**
- **Sluten hemorroidektomi ad modum Ferguson**
- **Staplad anopexi**

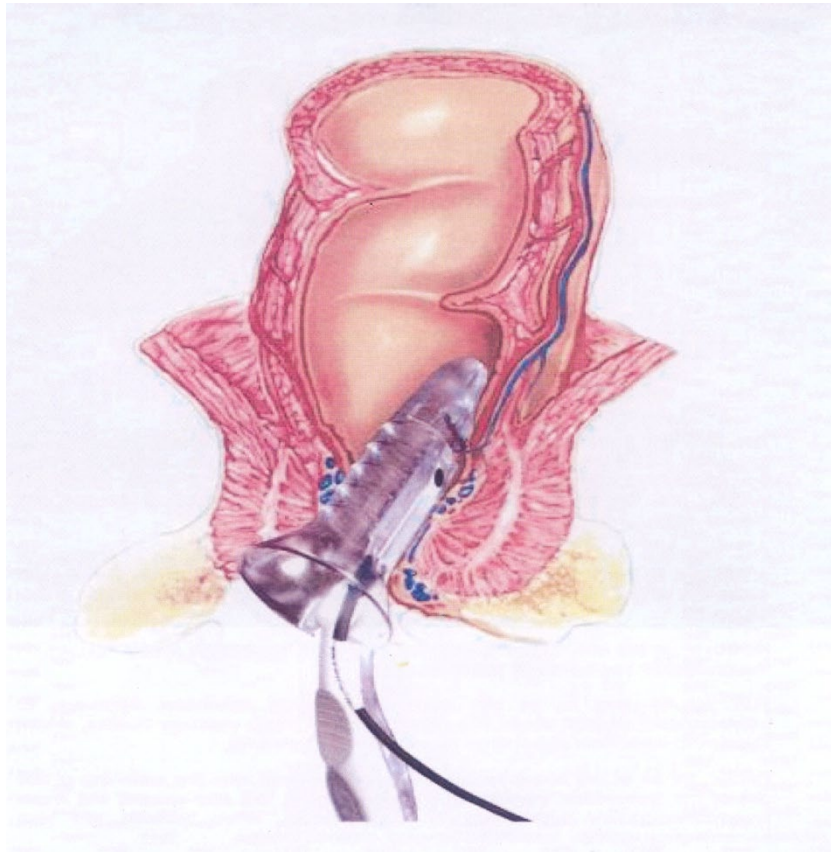
Injektionsbehandling



Gummibandsligatur



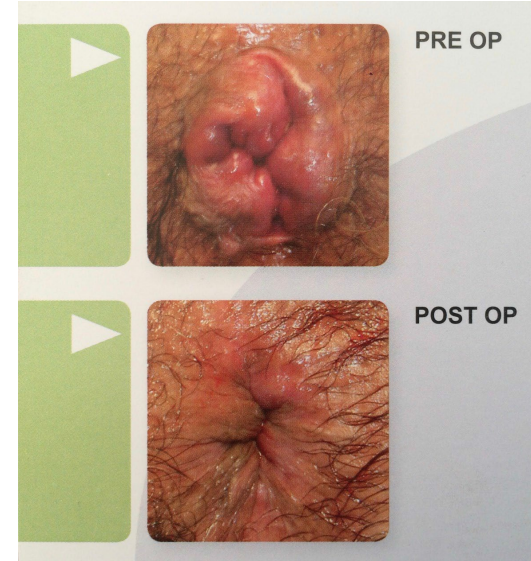
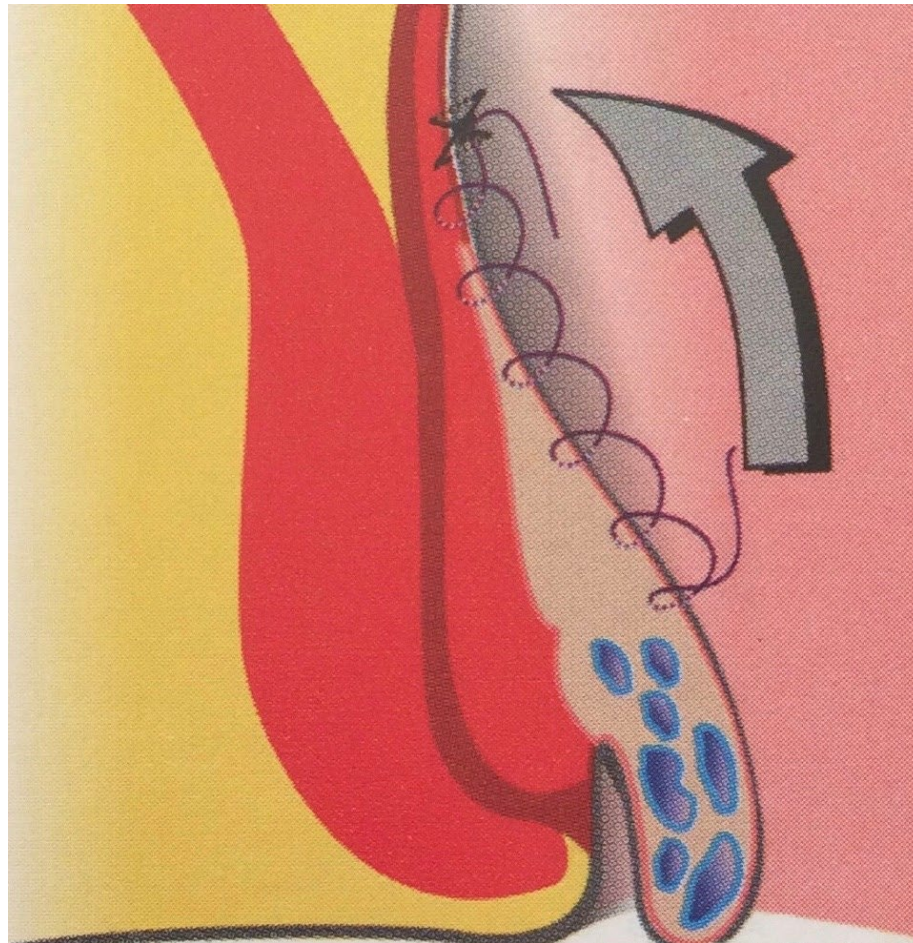
Transanal Haemorrhoidal Dearterialisation



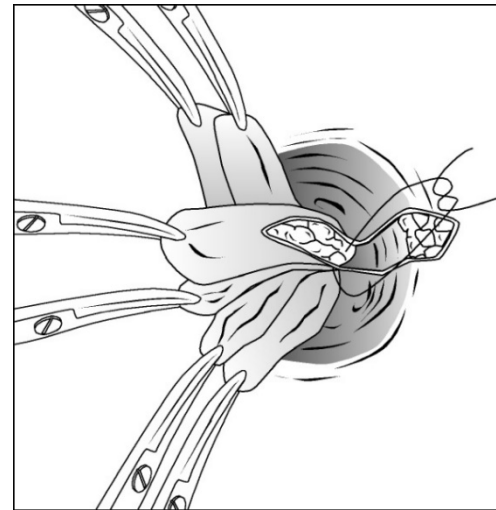
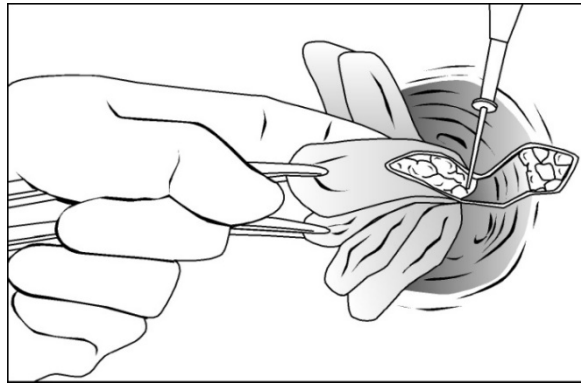
2 steg:

1. DG HAL- Doppler guided hemorrhoidal artery ligation
2. RAR – Recroanal repair (mucopexi)

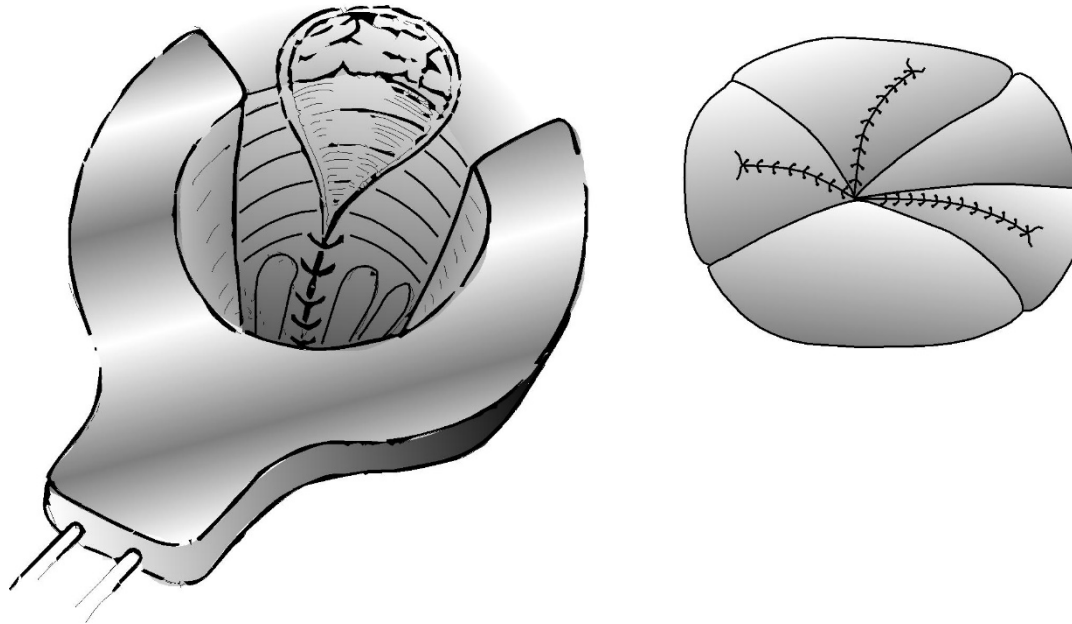
Före och efter THD



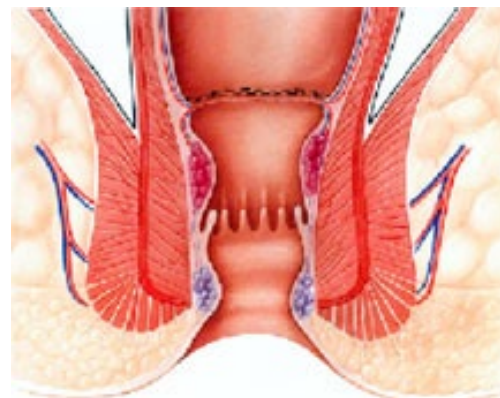
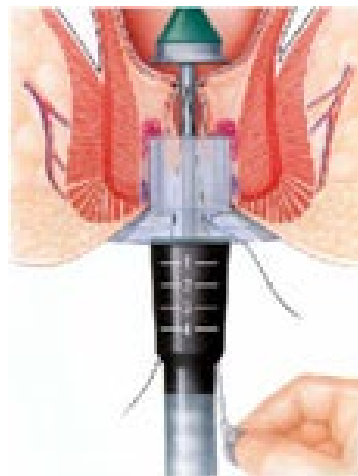
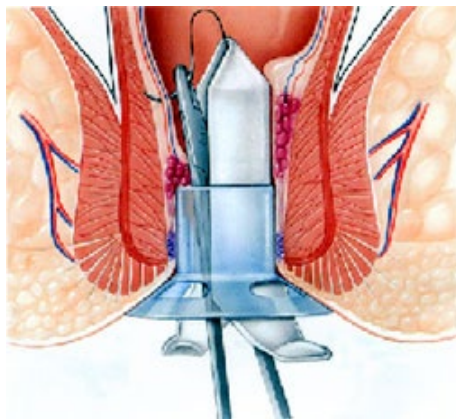
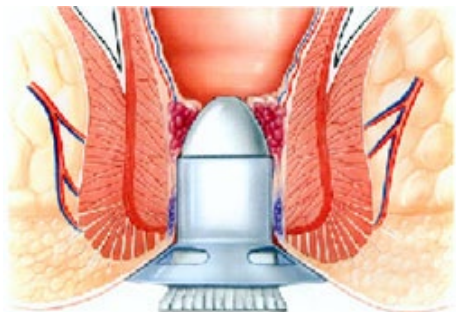
Öppen hemorrojdektomi enligt Milligan



Sluten hemorrojdektomi enligt Ferguson



Staplad anopexi (PPH)



Behandlingstabell hemorrojder

Metod	Grad I	Grad II	Grad III	Grad IV
Fibertillskott	+	+	+	+
Lokal behandling	+	+/-	-	-
Injektionsbehandling	+	+	-	-
Gummibandsligatur	-	+	+/-	-
THD	-	+	+	+/-
PPH	-	+	+	+/-
Hemorroidektomi	-	+/-	++	++

Behandlingsutfall

- **Skleroserande injektioner (Grad I-II)**
 - Långtidsrecidiv upp till 70%
 - Komplikationsrisk: 0.7-6.5%
- **Gummibandsligatur (Grad I-II)**
 - Långtidsrecidiv (5 år): 25%
 - Komplikationsfrekvens: oklart
- **THD (Grad I-III)**
 - Mer smärta än gummiband, mindre än Milligan
 - Recidiv: 12-27%

Behandlingsutfall

- **Hemorroidektomi enligt Milligan**
 - Långtidsrecidiv <5% (enl Cochrane)
 - Associerad med postop smärta
 - Risk för inkontinens och stenosis

- **Staplad anopexi (PPH)**
 - Långtidsrecidiv 10-25%
 - Komplikationer: blödning, inkontinens, infektioner
 - Dyr!

Gummibandsligatur vs THD

Lancet. 2016 Jul 23;388(10042):356-364. doi: 10.1016/S0140-6736(16)30584-0. Epub 2016 May 25.

Haemorrhoidal artery ligation versus rubber band ligation for the management of symptomatic second-degree and third-degree haemorrhoids (HubBLE): a multicentre, open-label, randomised controlled trial.

Brown SR¹, Tiernan JP², Watson AJM³, Biggs K⁴, Shephard N⁴, Wailoo AJ⁵, Bradburn M⁴, Alshreef A⁵, Hind D⁴; HubBLE Study team.

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- 4 Clinical Trials Research Unit, School of Health and Related Research, University of Sheffield, Sheffield, UK.
- 5 Health Economics and Decision Science, School of Health and Related Research, University of Sheffield, Sheffield, UK.



Resultat HubBLE-studien

- **337 pat grad II-III – 176 gummiband, 161 THD**
- **Recidivfrekvens efter ett år var 30% efter THD och 49% efter ett gummiband. Efter flera gummibandsbehandlingar sjönk recidivfrekvensen till 37%.**
- **THD-pat hade mer ont den första veckan efter operationen.**
- **Gummibandsbehandling billigare än THD.**

Staplad anopexi vs Milligan

Health Technol Assess. 2017 Nov;21(70):1-224. doi: 10.3310/hta21700.

A pragmatic multicentre randomised controlled trial comparing stapled haemorrhoidopexy with traditional excisional surgery for haemorrhoidal disease: the eTHoS study.

Watson AJ¹, Cook J², Hudson J³, Kilonzo M⁴, Wood J^{3,5}, Bruhn H³, Brown S⁶, Buckley B⁷, Curran F⁸, Jayne D⁹, Loudon M¹⁰, Rajagopal R¹¹, McDonald A^{3,5}, Norrie J^{3,5}.

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- 8 Central Manchester University Hospitals NHS Foundation Trust, Manchester, UK.
- 9 Leeds Teaching Hospitals NHS Trust, Leeds, UK.
- 10 NHS Highland, Department of Surgery, Belford Hospital, Fort William, UK.
- 11 Glan Clwyd Hospital, Betsi Cadwaladr University Health Board, North Wales, UK.



Resultat eTHoS-studien

- **777 pat grad II-IV – 389 staplad anopexi, 388 Milligan**
- **QoL initialt bättre för pexigruppen men efter två år bättre för Milligan-gruppen.**
- **Mindre risk för recidiv med Milligan.**
- **Mindre risk för inkontinens med Milligan.**
- **Milligan är dessutom billigare**

Behandlingstabell hemorrojder

Metod	Grad I	Grad II	Grad III	Grad IV
Fibertillskott	+	+	+	+
Lokal behandling	+	+/-	-	-
Injektionsbehandling	+	+	-	-
Gummibandsligatur	-	+	+/-	-
THD	-	+	+	+/-
PPH	-	+	+	+/-
Hemorroidektomi	-	+/-	++	++

