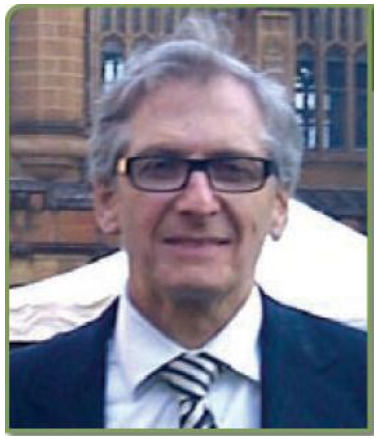


Professor David Lubowski

University of NSW
Head, Dept Colorectal Surgery
St George Hopsital
Sydney

Managing Anorectal Conditions - Concurrent Workshop Repeated

Friday, 21 June 2013	Start 4:30pm	Duration: 55mins	Works
	Start 5:35pm	Duration: 55mins	Works

Advances in the treatment of anorectal conditions

David Lubowski
Assoc Professor, University of NSW

Head, Dept Colorectal Surgery
St George Hospital, Sydney

Disclosure: Speaker holds shares in or is a consultant to Medtronic, Epsilon Pharm., Daltray P/L

St George Hospital

University of New South Wales

50% of the adult population will visit their GP (over 5 yrs) for rectal bleeding

Keighley and Williams *Surgery of Anus, Rectum and Colon* 2002

Anal symptoms

Bleeding, pain, prolapse, swelling, itching, soiling, mucus discharge

Anal conditions:

- ***Anal fissure***
- ***Haemorrhoids***
- Fistula
- Abscess
- Pruritus
- Warts
- Anal carcinoma

- **Pathophysiology**
- **Evidence-based treatment**

Patient : Mr John Butpain *40yrs*

“I have a problem with my haemorrhoids”

What are your symptoms?

“Pain”
“Bleeding”
“Swelling (a lump) ”
“ Itching”
“ Mucus, faecal soiling”

An accurate history will make the correct diagnosis in 80% cases

1. **Age group of patient**
2. **Length of history**
3. **? pain**
4. **? a lump**

24yrs Female

4 weeks severe pain at defaecation

Blood on paper

No lump

1. **Fistula or abscess**
2. **Haemorrhoids**
3. ***Fissure***
4. **Cancer**

1. **Age group of patient**
2. **Length of history**
3. **? pain**
4. **? a lump**

24yrs Female

1 week severe pain at defaecation

Blood on paper

Tender anal lump

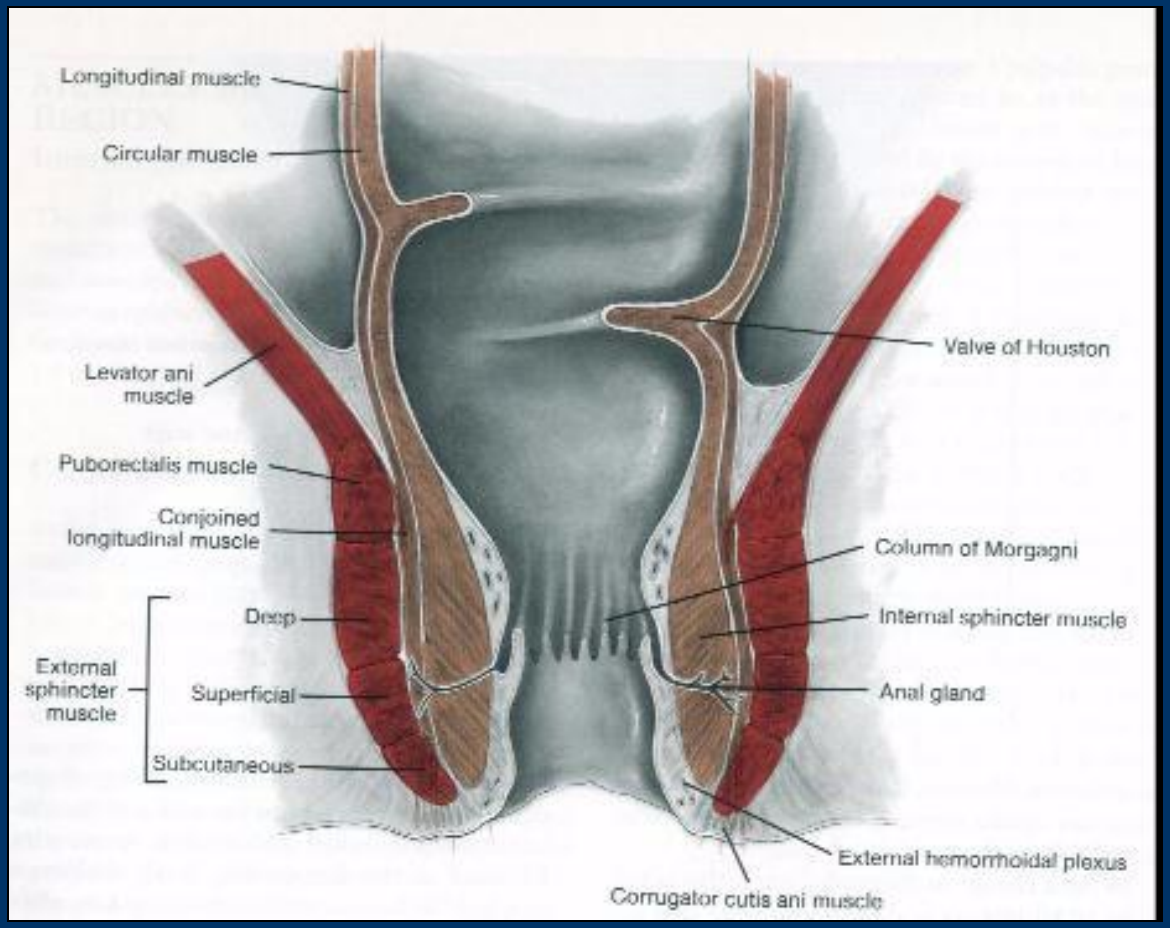
1. Fistula or abscess

2. *Haemorrhoids (thrombosed)*

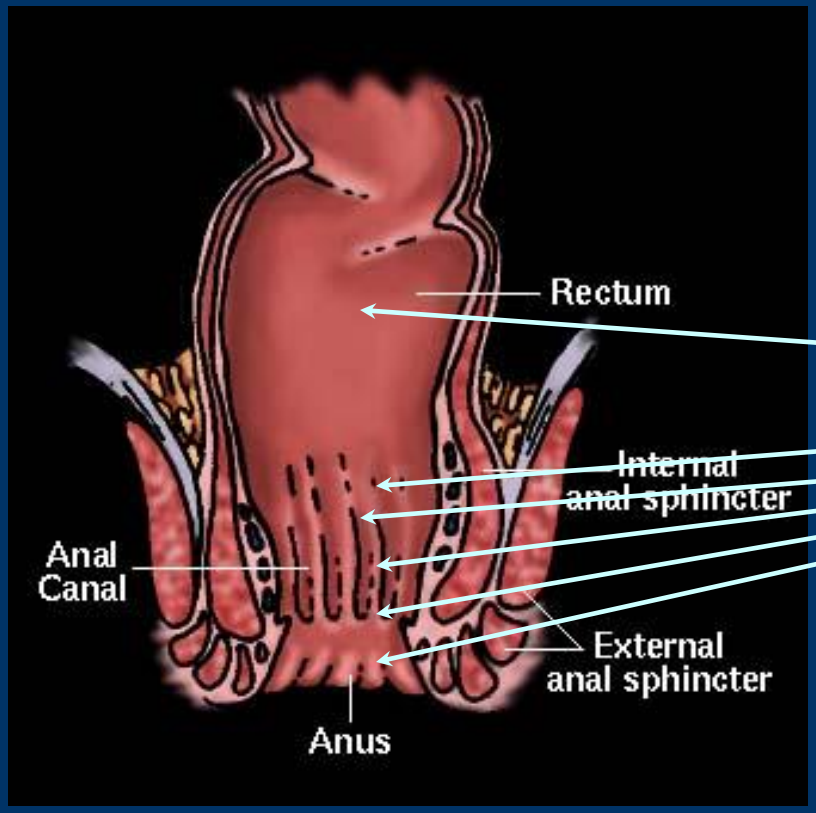
3. Fissure

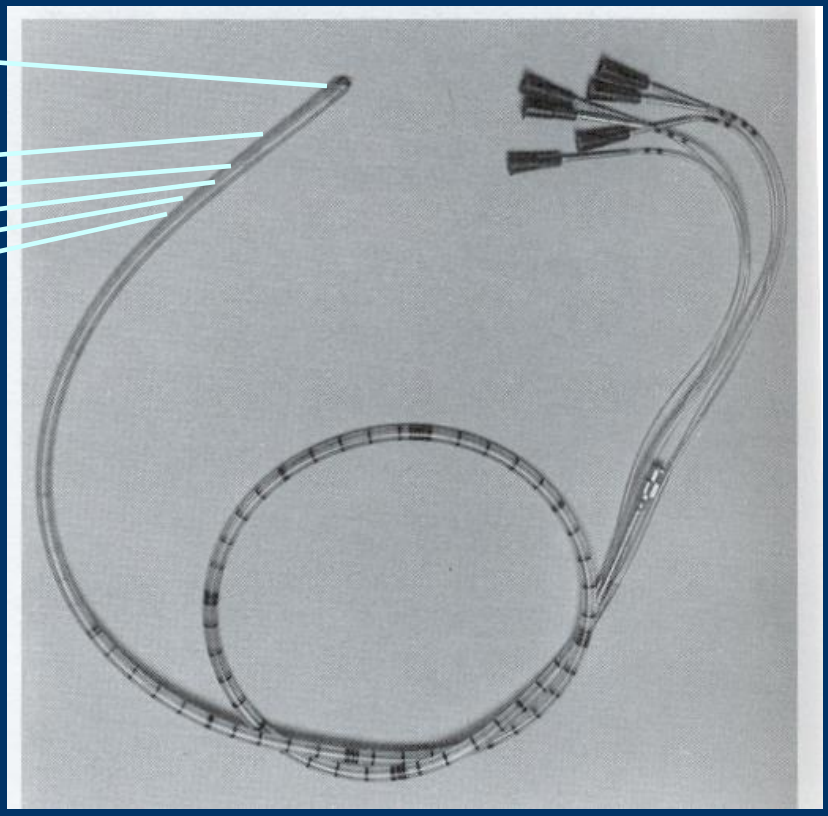
4. Cancer

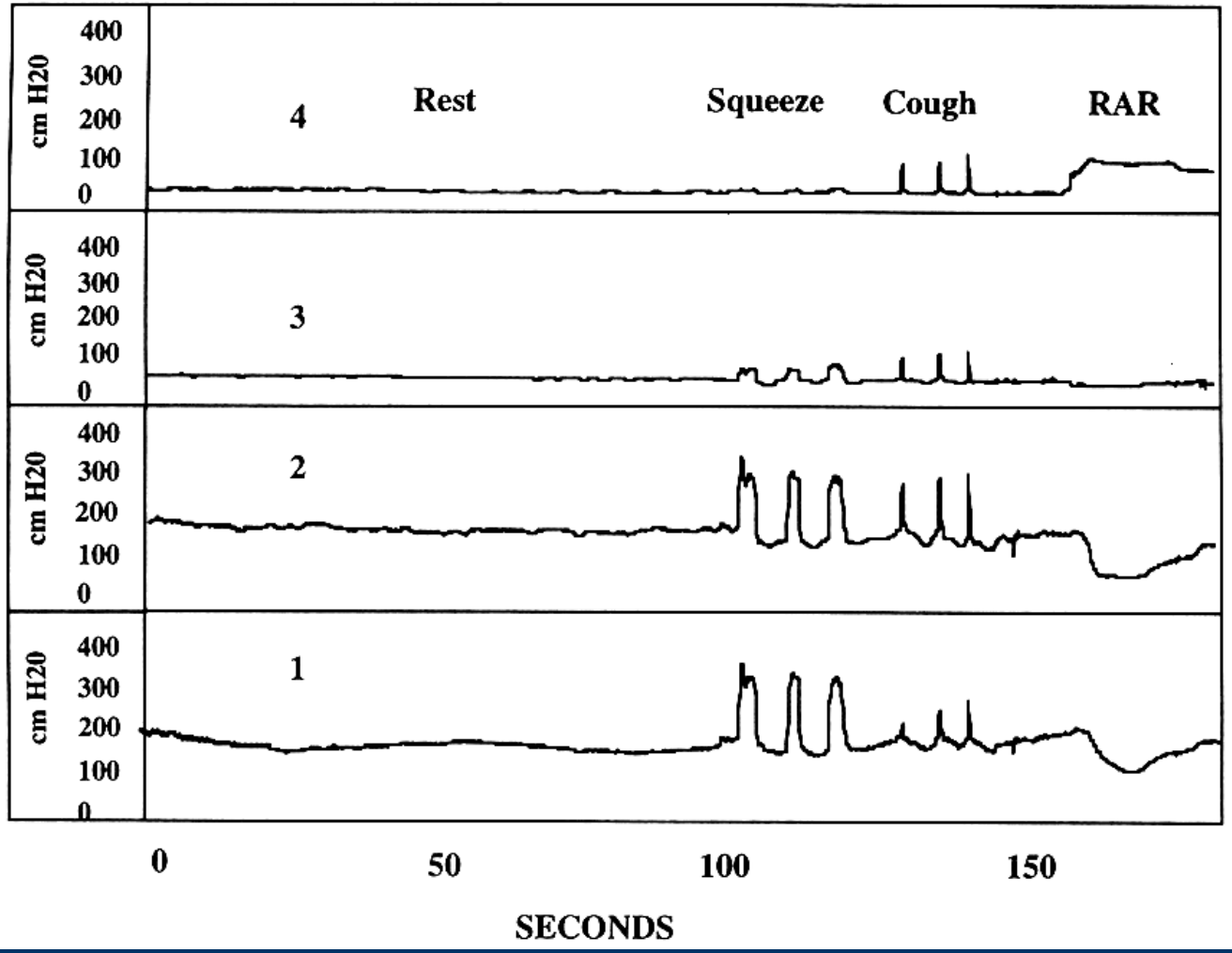
Anorectal anatomy



ANAL MANOMETRY






cm H20
400
300
200
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4
Rest
Squeeze
Cough
RAR
3
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1
0
50
100
150
SECONDS

Anal fissure and haemorrhoids

Common pathophysiology

Internal sphincter spasm

↓

High anal canal pressure

Arabi , Keighley et al. Am J Surg 1977; 134: 608-610

Hancock. Br J Surg 1977; 64:249-262

Hancock. Br J Surg 1981; 68:729-730

Kennedy et al. Dis Colon Rect 1999; 42: 1000-6.

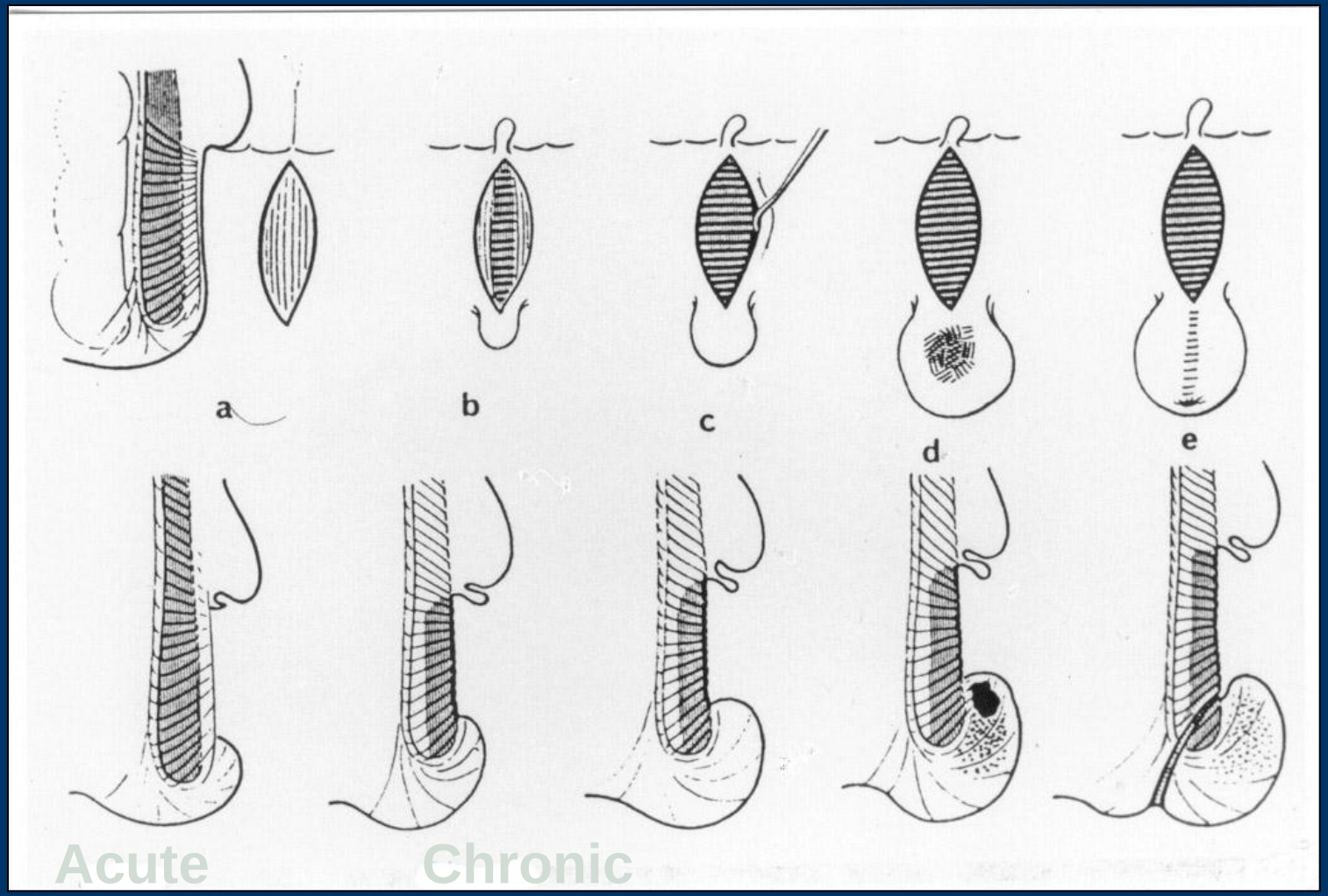
Anal Fissure

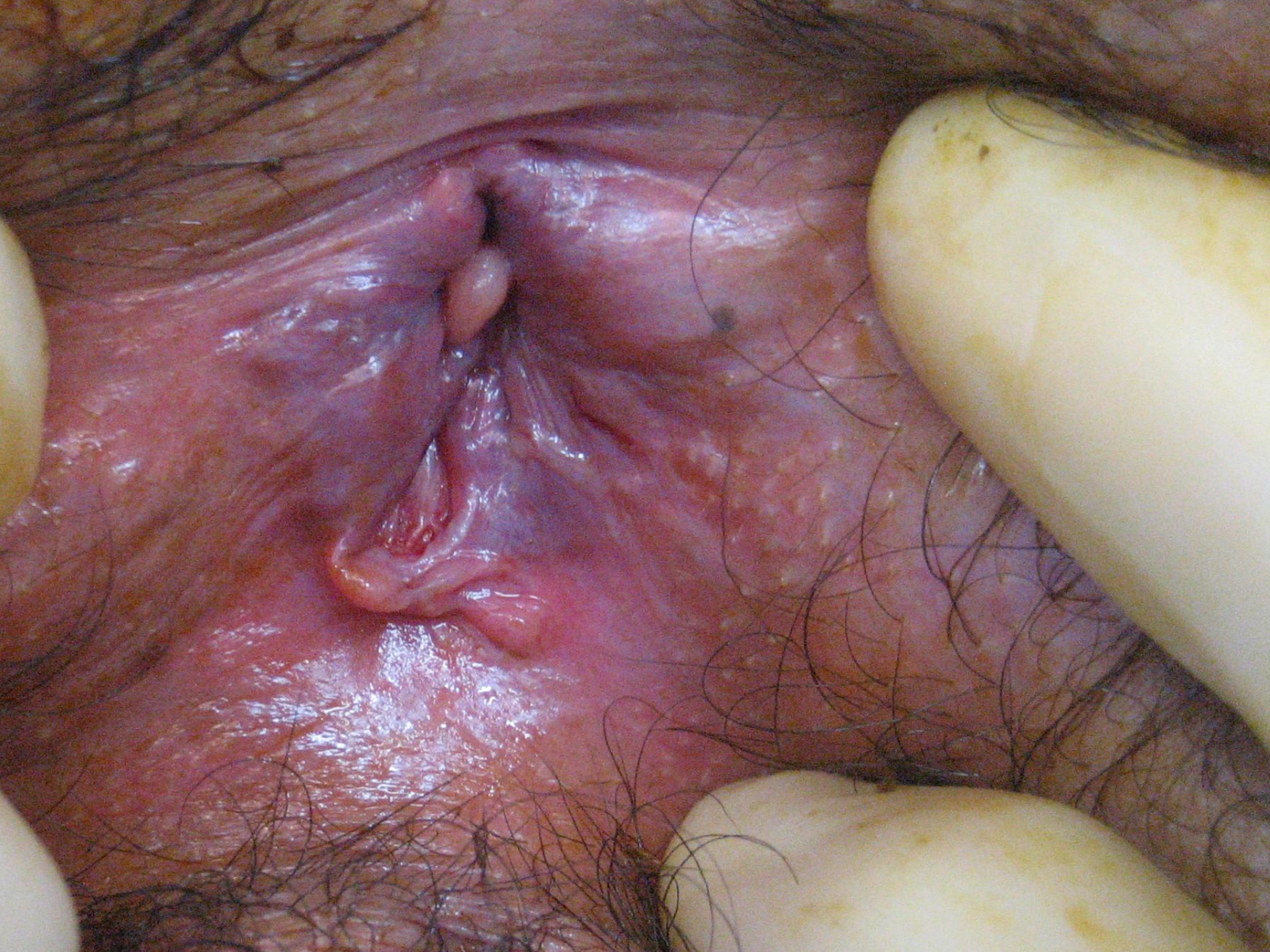
Prevalence

- 6.2% - 15% of visits to colorectal clinic
- 10% of operations in colorectal department

Fleshman et al DCR 1992

Bleeding, itching, discharge, pain ++


a
b
c
d
e
Acute
Chronic



Anal Fissure Pathophysiology

Constipation (40%) Diarrhoea (20%)

Normal stools (40%)

Internal sphincter spasm → high sphincter pressure and ischaemia

Schouten Br J Surg 1996

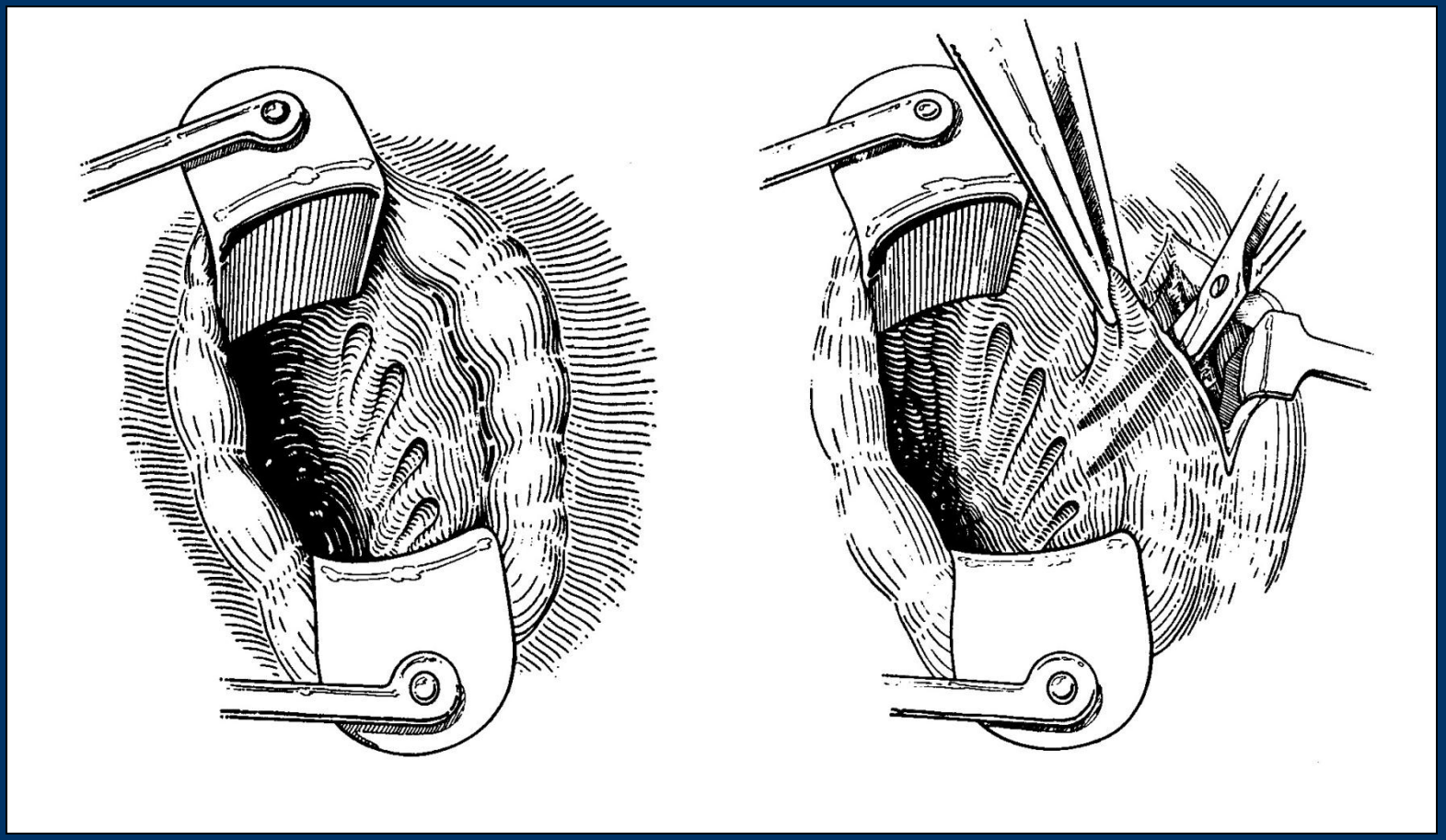
Anal Fissure
Treatment - Pathophysiology

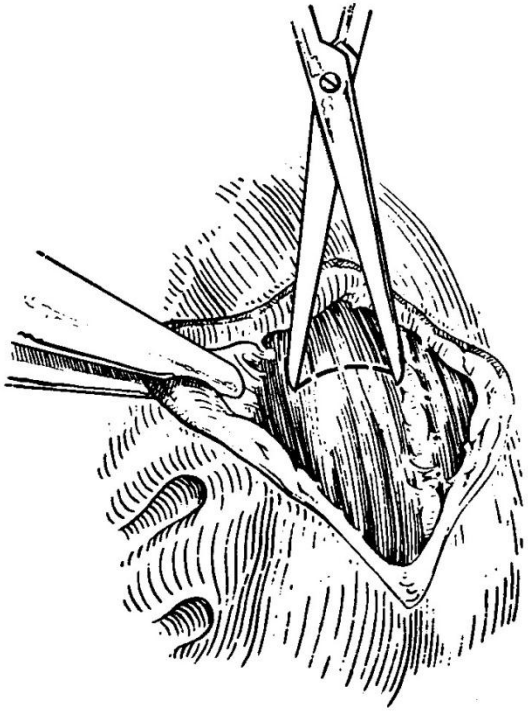
- **Excising fissure (fissurectomy) not effective**

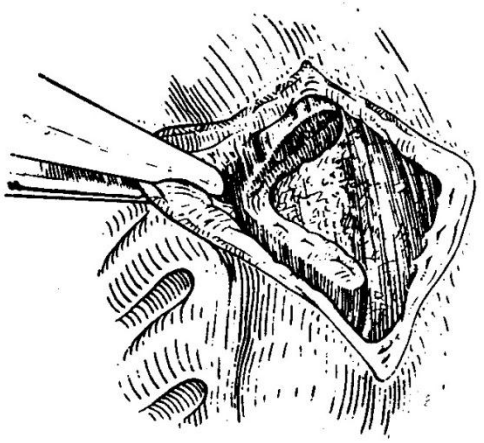
- **Reducing sphincter spasm very effective**
  - **anal dilatation**
  - **sphincterotomy**

  ** ***Incontinence***

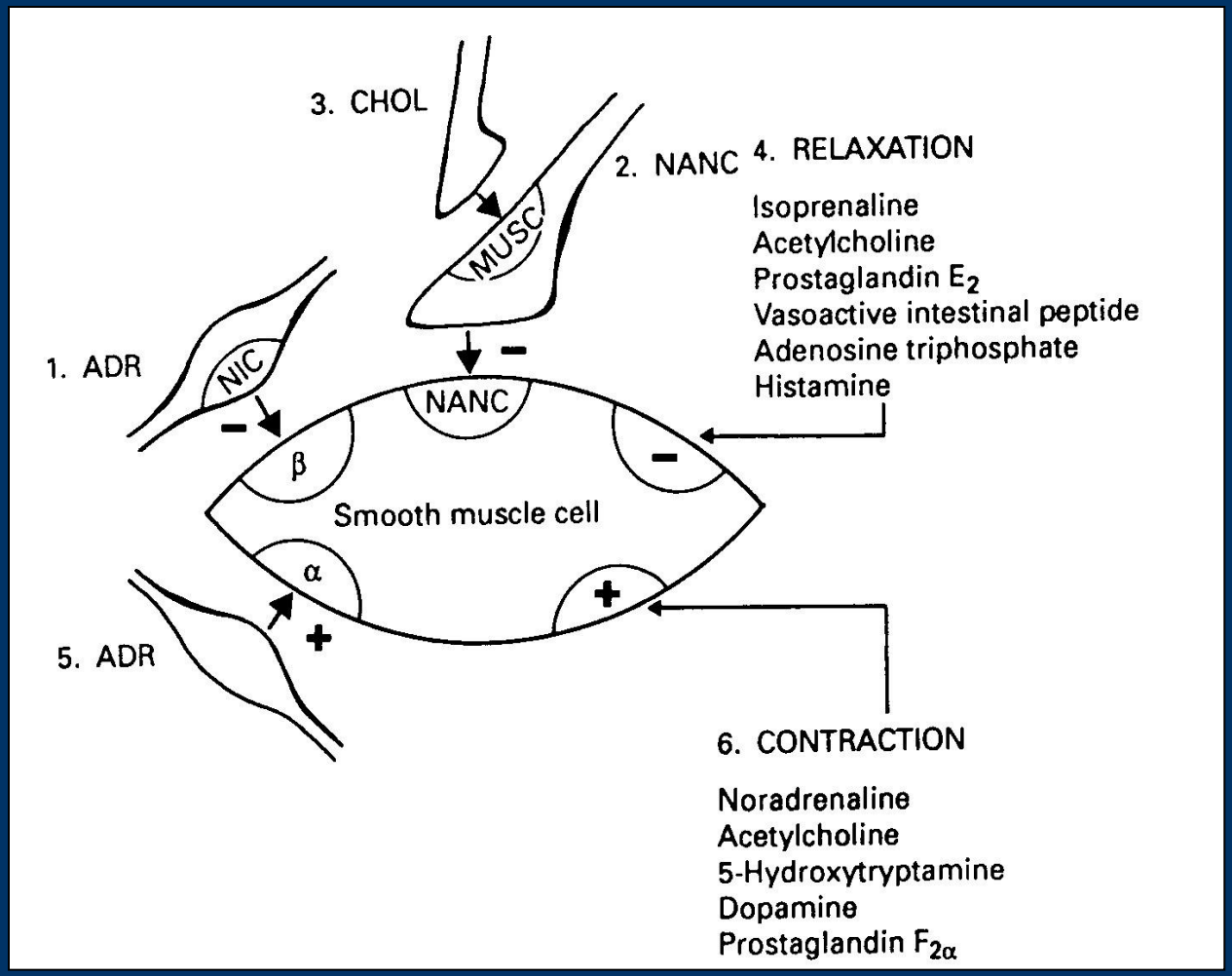
Treatment: remove sphincter spasm – *sphincterotomy* (Notaras)





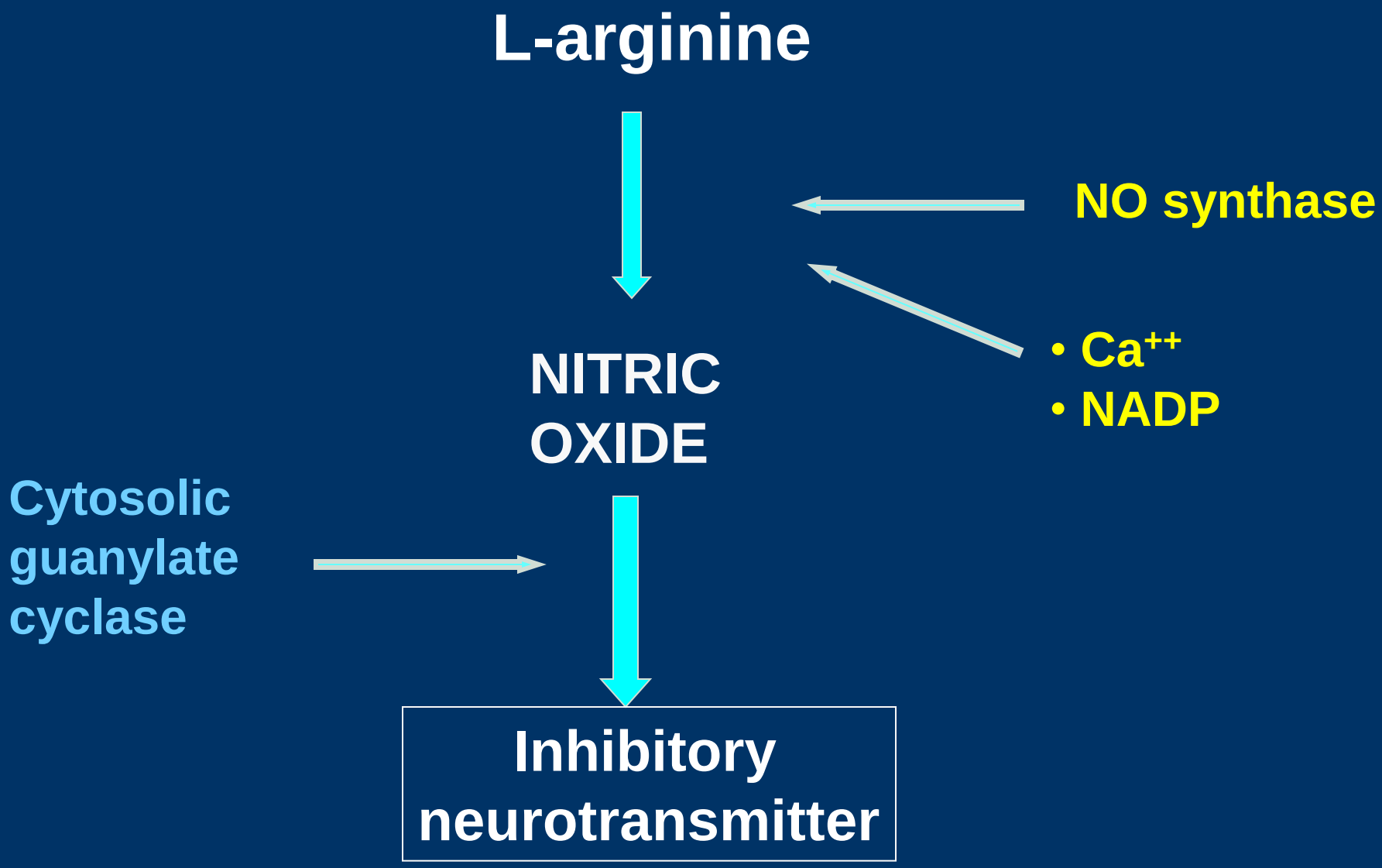


Pharmacologic relaxation of IAS

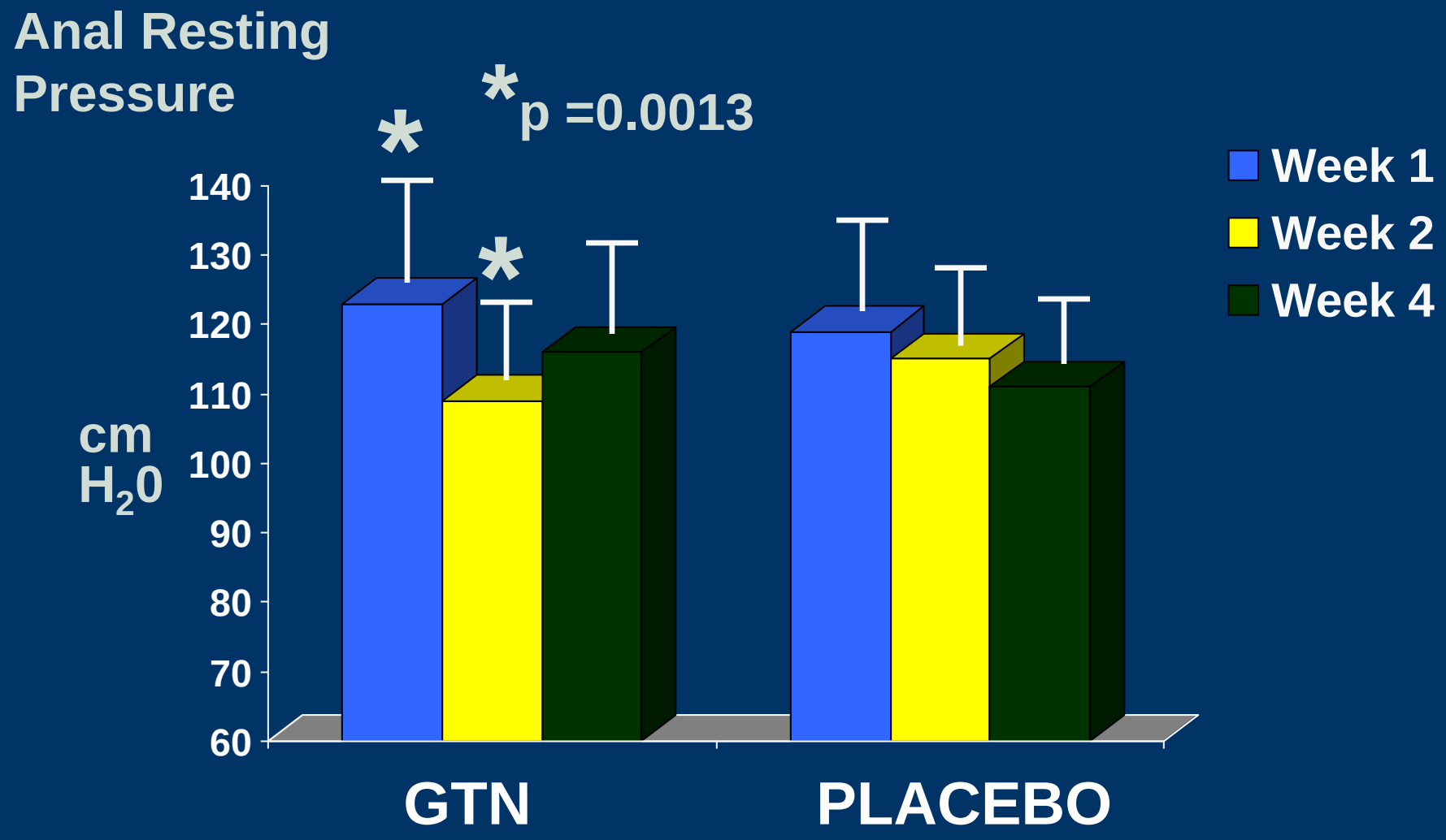


D. Burley 1980

O'Kelly, Brading, Mortensen
Gut 1993



Nitric oxide donor: GTN



24yrs Female

4 weeks severe pain at defaecation

Blood on paper

No lump

1. **Fistula or abscess**
2. **Haemorrhoids**
3. **Posterior *fissure***
4. **Cancer**

1. **Spread buttocks**
2. **Digital exam**
   - **press anteriorly**
   - **tap posteriorly**
3. **No proctoscopy**

Anal fissure
Management

- **Diet – fibre and fluids**
- **Stool softeners: eg Metamucil, Benefiber**
- **Oral analgesia (non-narcotic)**
- **Pharmacologic Rx**
    1. **? steroids**
    2. **? local anaesthetic**
    3. **? 0.2% GTN (Rectogesic)**

Anal fissure
Pharmacologic: Topical therapy

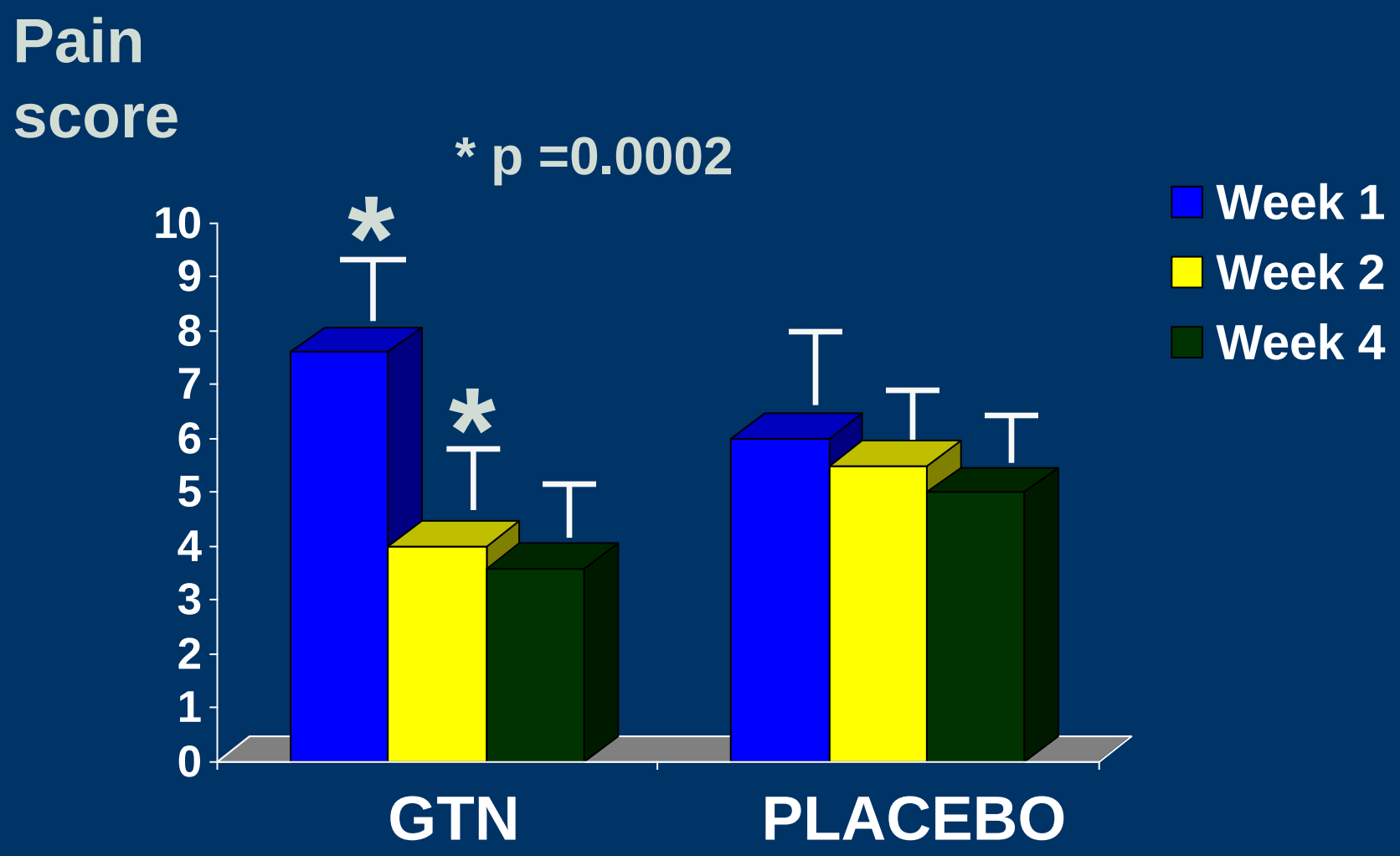
- **Local anaesthetics**
  - **pain relief in *acute* fissures (anecdotal)**
  - **allergy 2-5%**
  - **high failure rate (reduced by 15g fibre)**

  (Alexander 1975, Rockey 1973, Cundall 2001)
- **Antiseptics – fissures are not infective**
- **Steroids - fissures are not inflammatory**
  - **steroids impair healing**

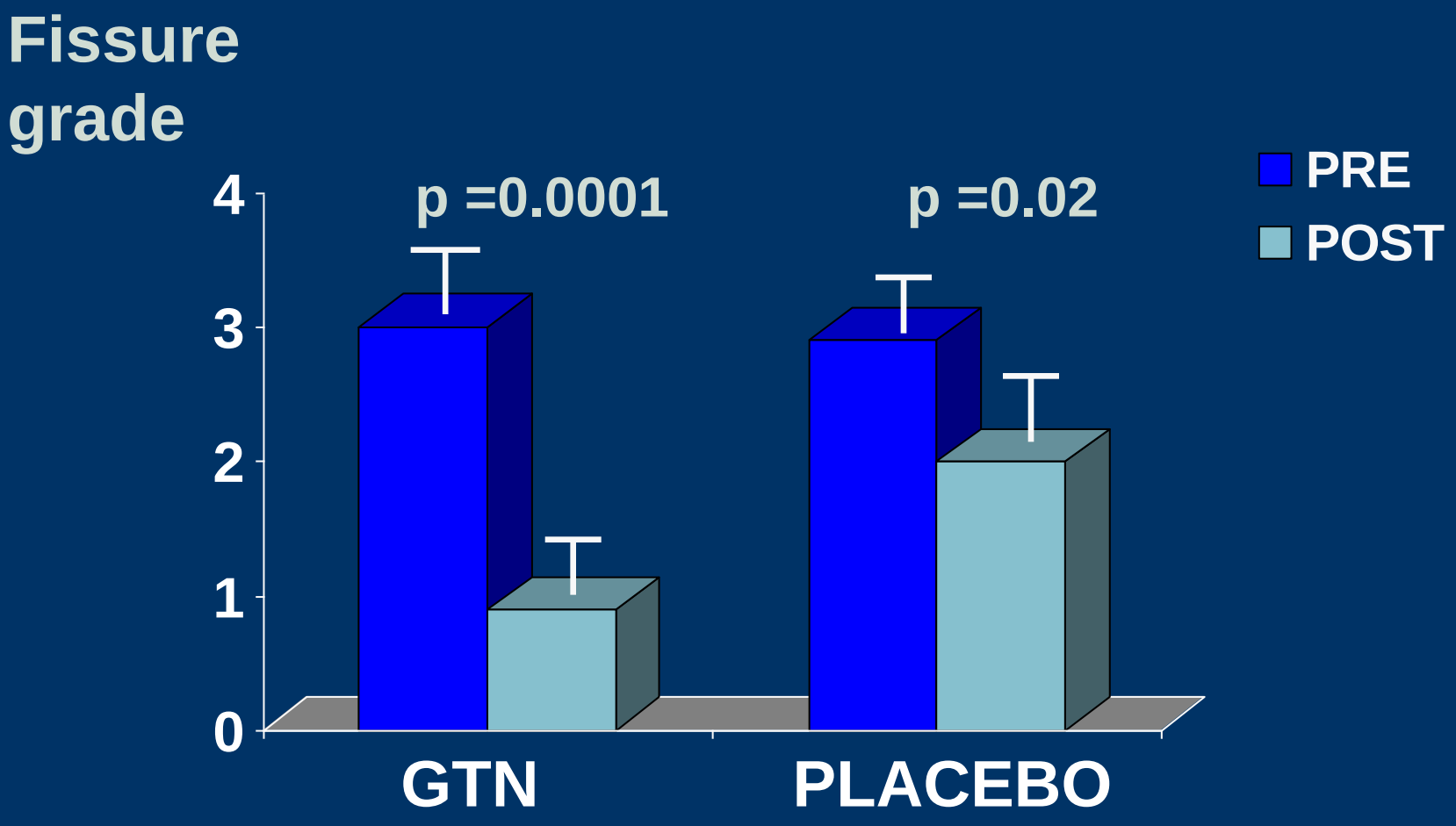
No randomised controlled trial showing any benefit

Pharmacologic: Topical therapy

GTN: Pain reduction



GTN: Fissure healing



Anal fissure: treatment with GTN

Gorfine DCR 1995	**Fissures and haems**
Loder BJS 1994	**Chemical sphincterotomy**
Kennedy DCR 1999	**Randomised + F/U**
Lund Lancet 1997	**Randomised**
Lund DCR 1997	**Randomised**
Bacher DCR 1997	**Non-randomised**
Oetle DCR 1997	**Randomised**
Pitt Colorect Dis 1999	**Randomised**

Anal Fissure

Rectogesic

- **45-80% heal (4-8 wks)**
- **60-80% avoid surgery by re-treating**

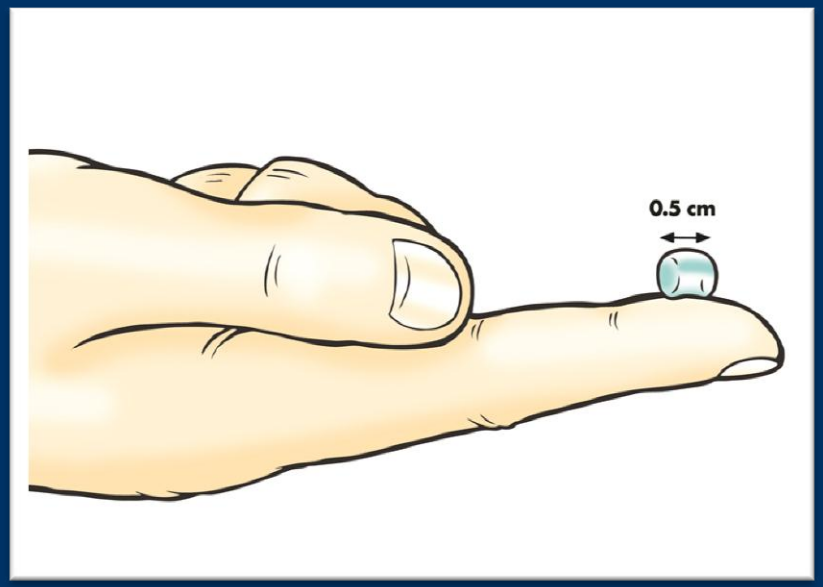
Kennedy et al 1999
Lund 1998

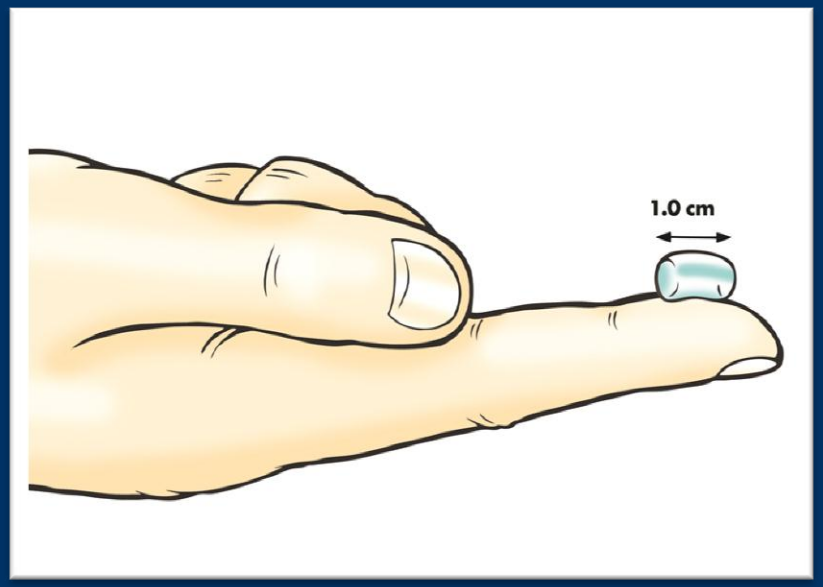
Anal Fissure

0.2% GTN first line treatment for all cases of symptomatic anal fissure (Level 1 evidence)

European Treatment Algorithm

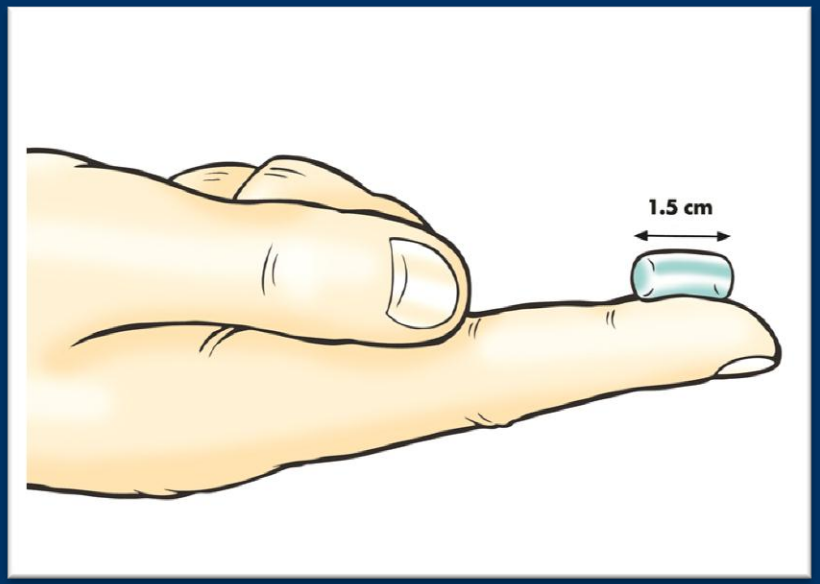
Dublin, 2006

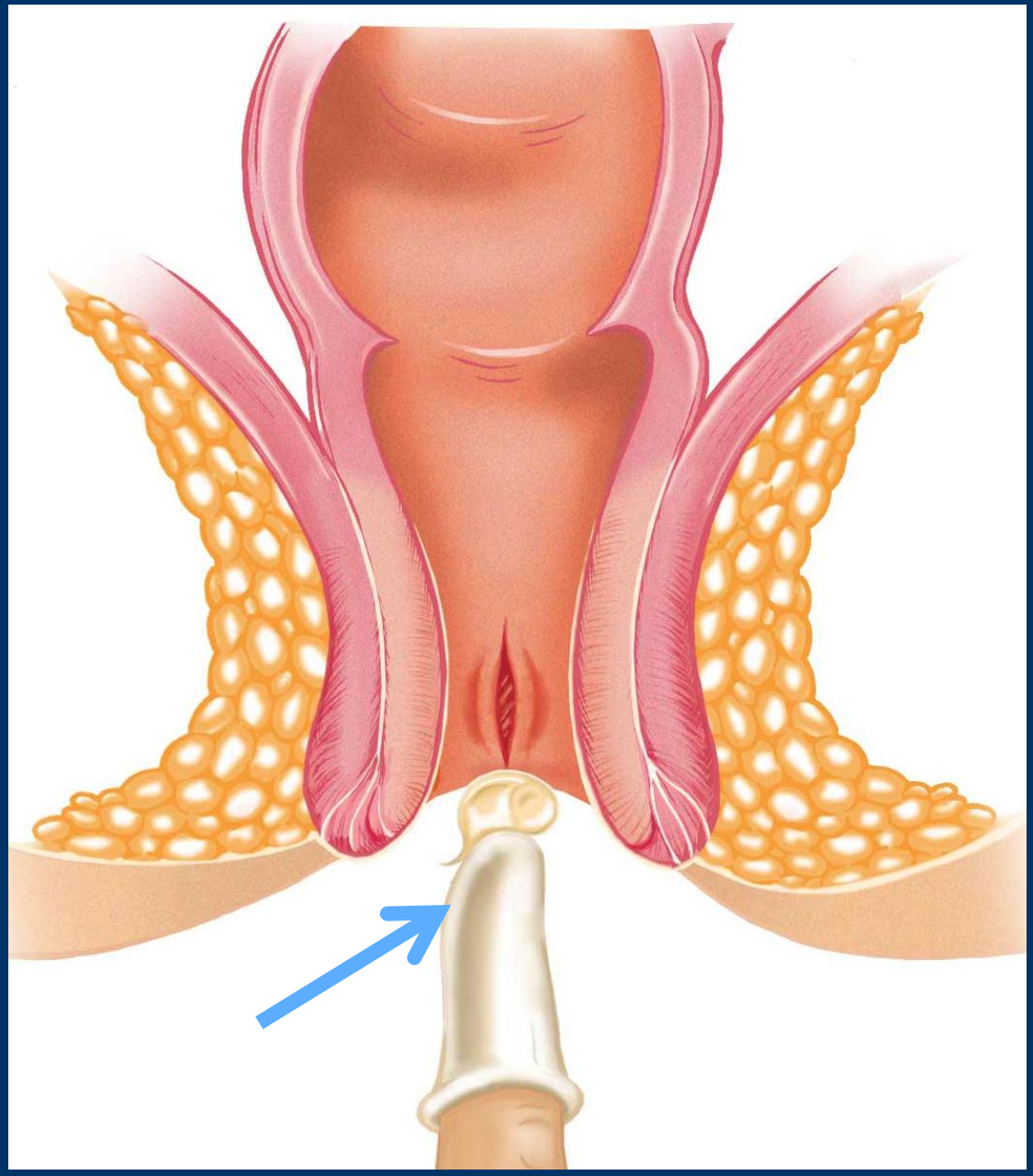




Rectogesic: Headaches

- **25%**
- **mild (<4% cease Rx)**





Anal Fissure
Failed conservative Rx

- **Botulinum toxin:**
  - effective in healing fissures: 80%+
  - incontinence in 10-20% cases
  - admission, sedation

- **Sphincterotomy:**
  - effective: 100% non-Crohn's
  - incontinence in 2-30%

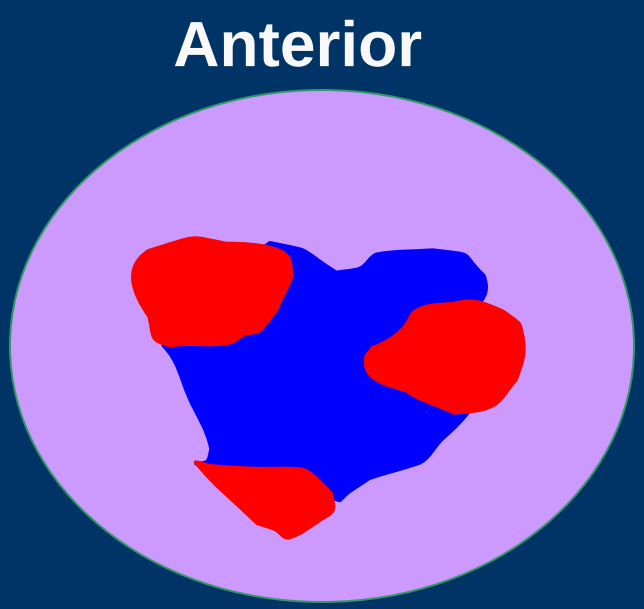
Anal Fissure
Treatment algorithm

- **Stool softeners 6m (Metamucil, Benefiber etc)**
- **Regular oral analgesia**
- **Rectogesic (4 wks)**

- **Recurrence: re-treat**

- **Failure to heal: Botox**
- **Failed Botox: lateral sphincterotomy**

Haemorrhoids



- 1st degree (bleed)
- 2nd degree (prolapse)
- 3rd degree (+manual)
- 4th degree (irreducible)

Primary: 3, 7, 11 o'clock
Secondary → circumferential

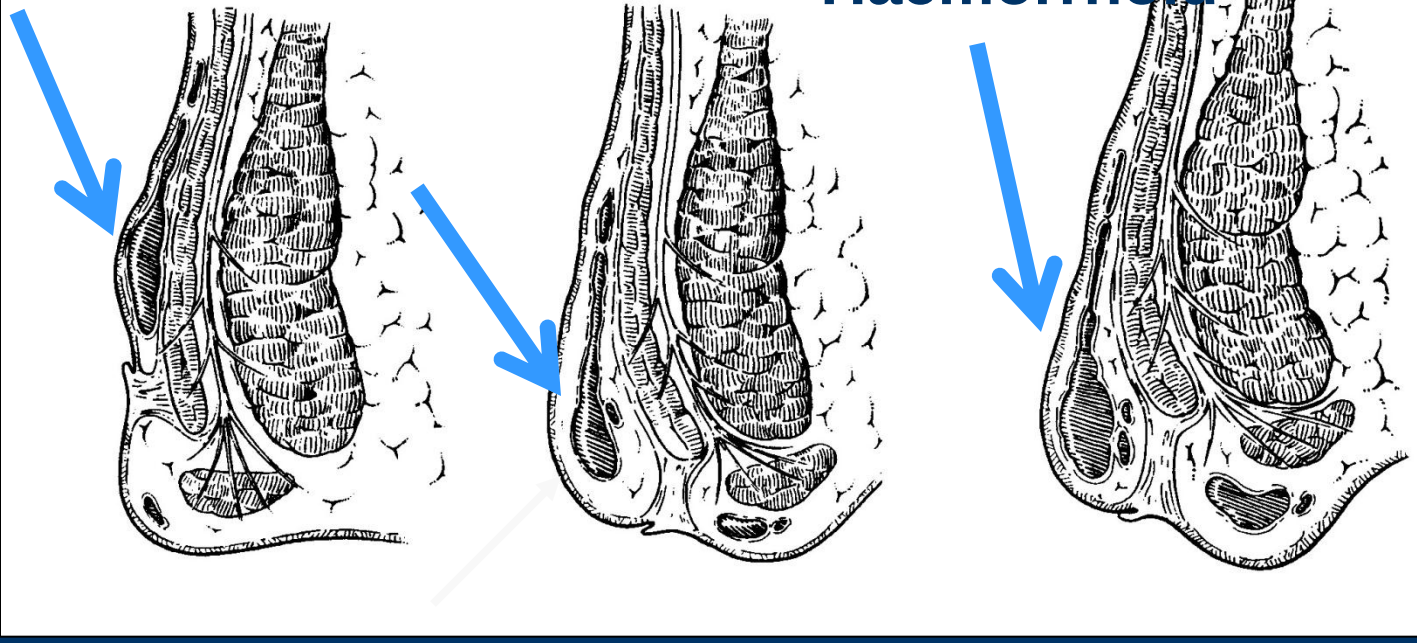
What are haemorrhoids?

- Vascular swellings at 3, 7, 11'clock
  (No: vessels are circumferential)

- Varicose veins
  (No: bleeding is arterial)

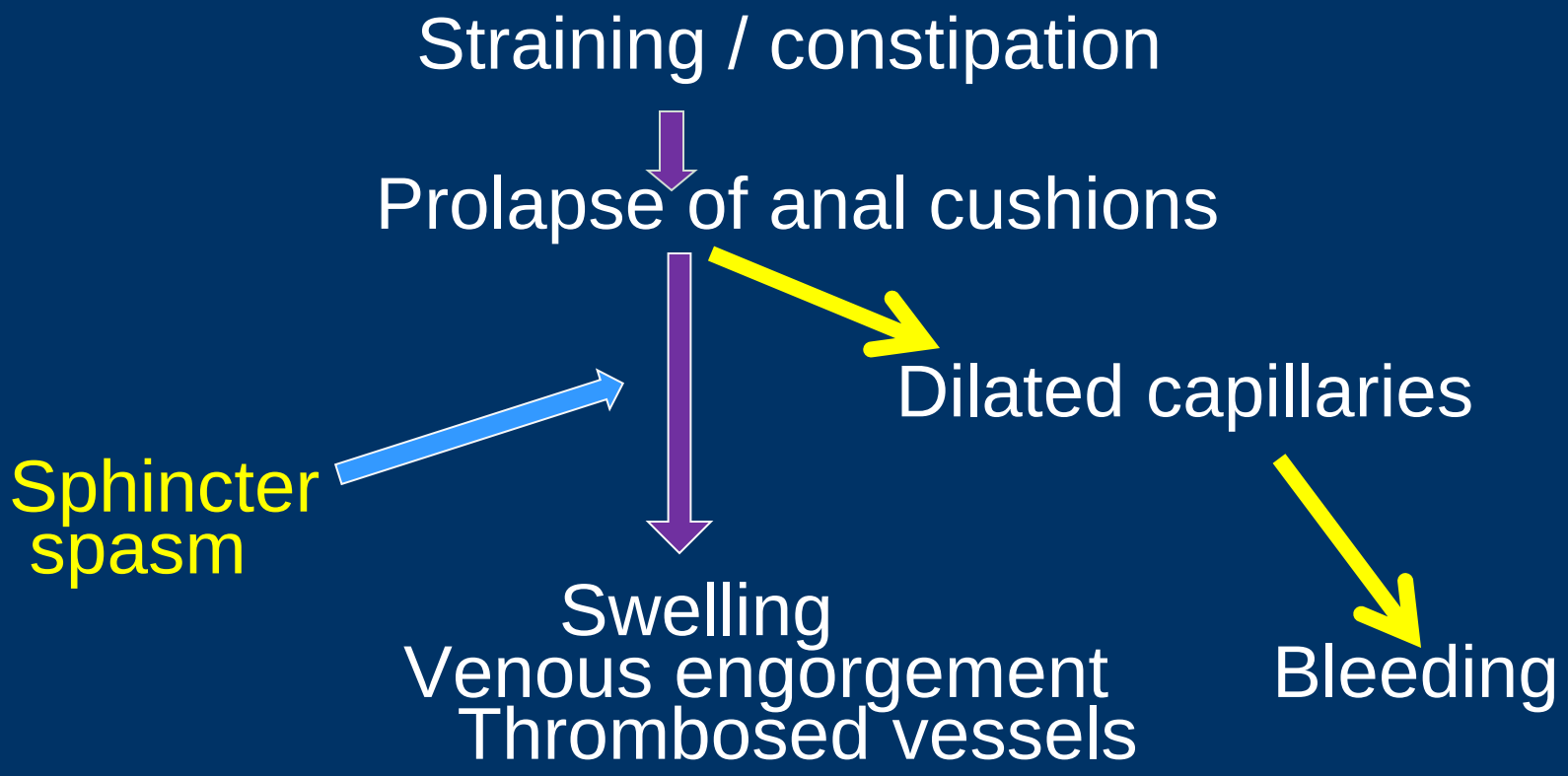
Submucosal expansions:
anal cushions at 3, 7, 11o'clock

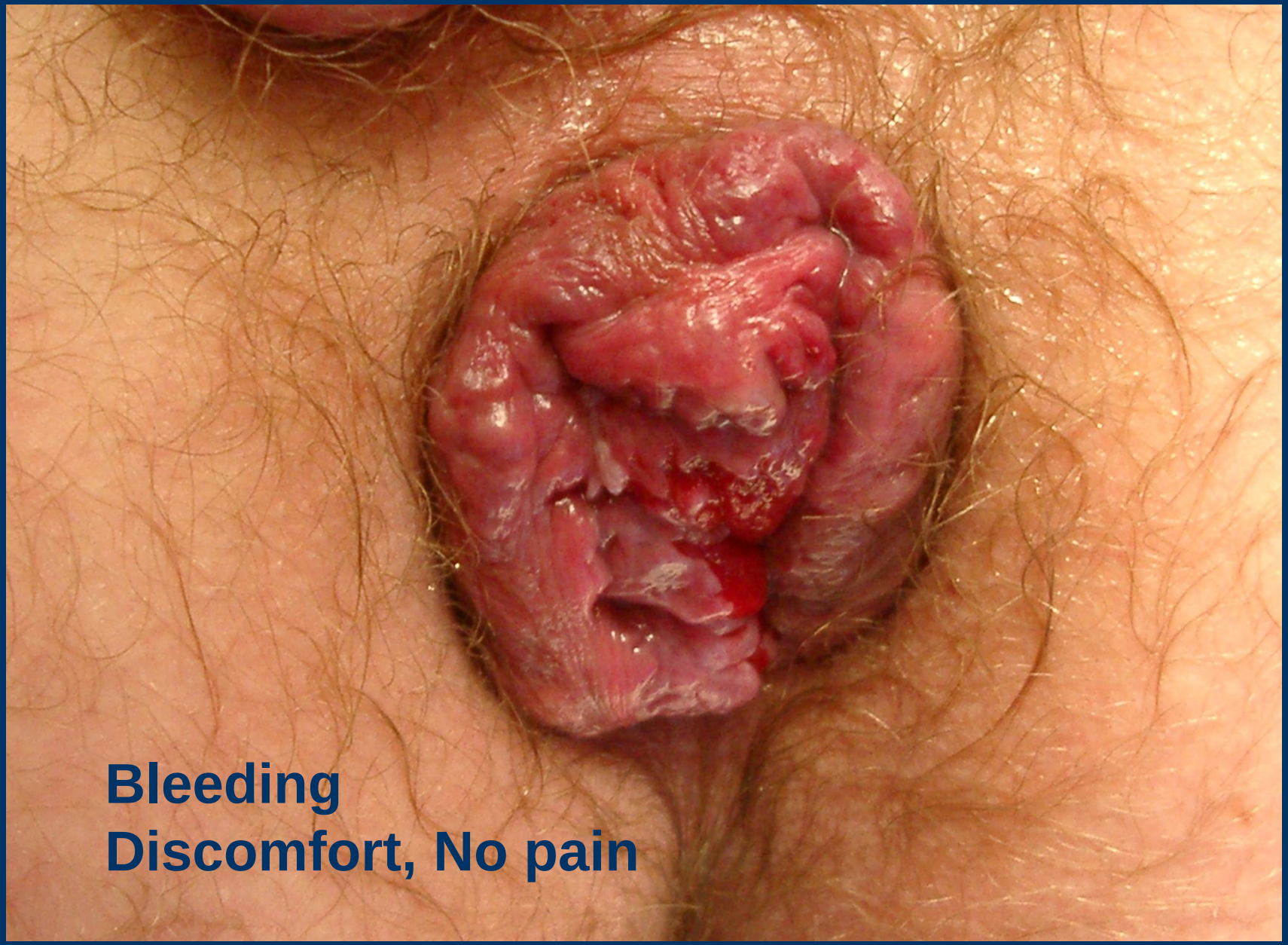
Anal cushion

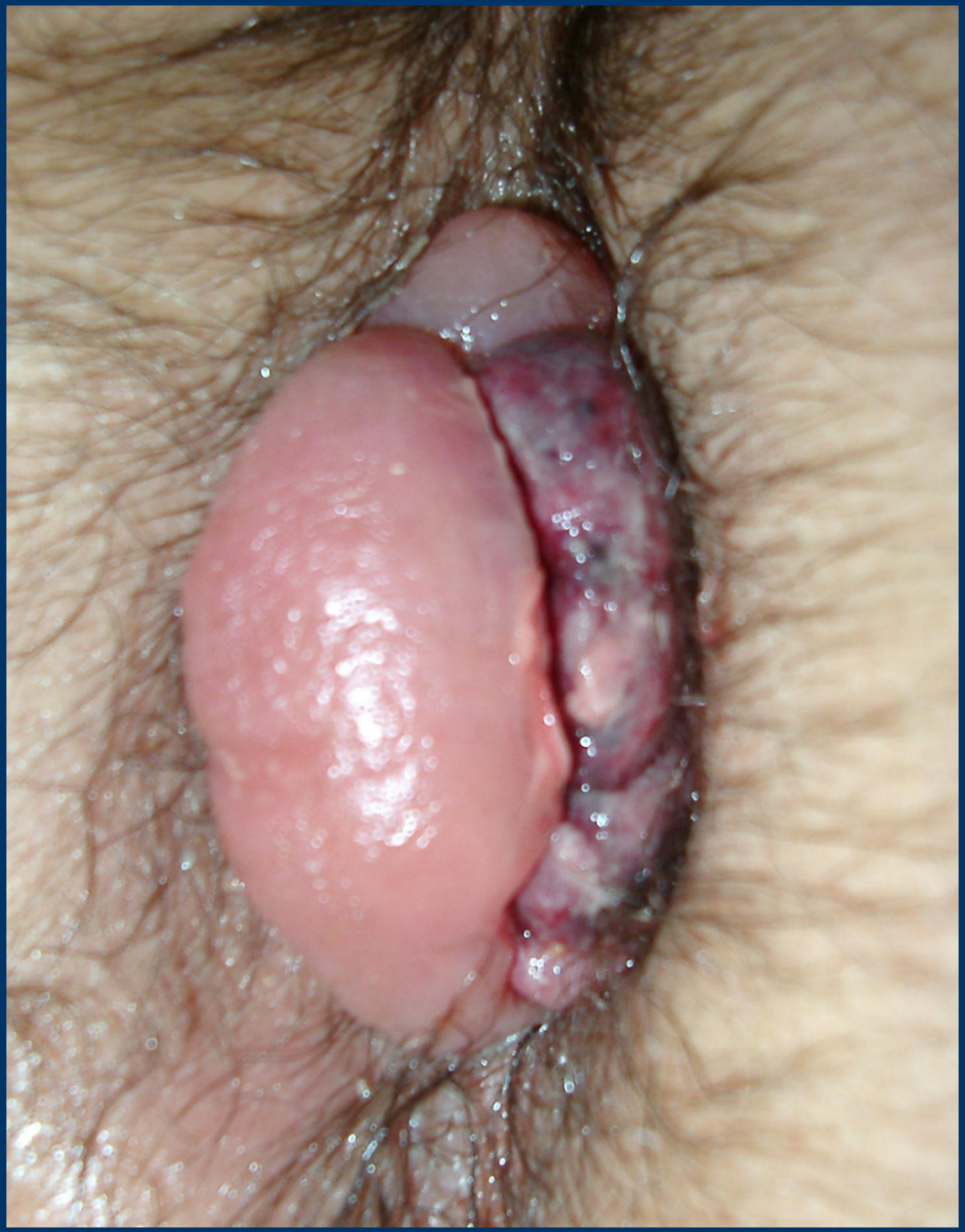


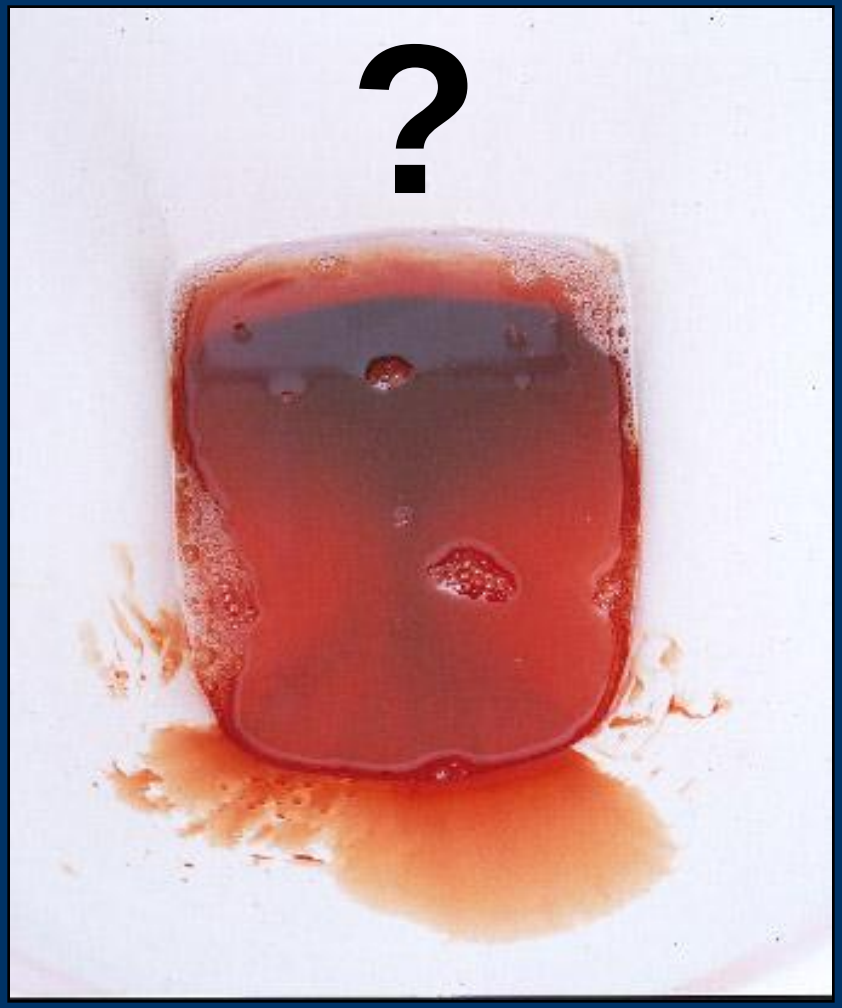
Haemorrhoid

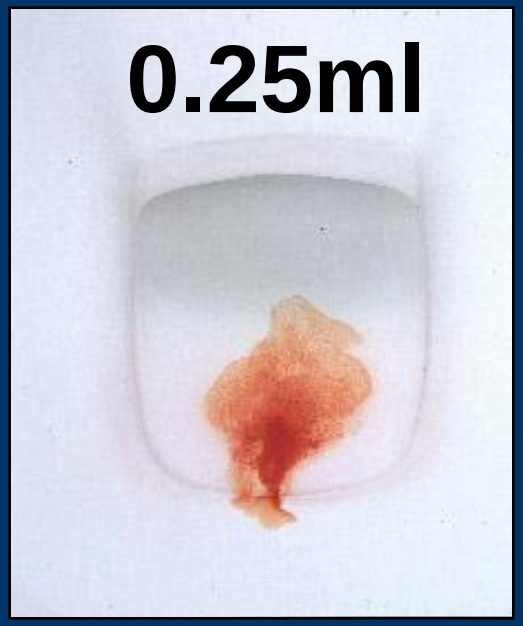
Haemorrhoids
Correct pathophysiology




Bleeding
Discomfort, No pain



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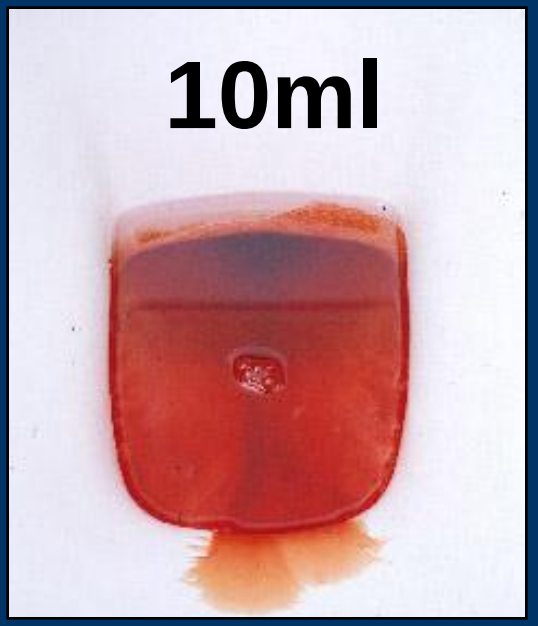
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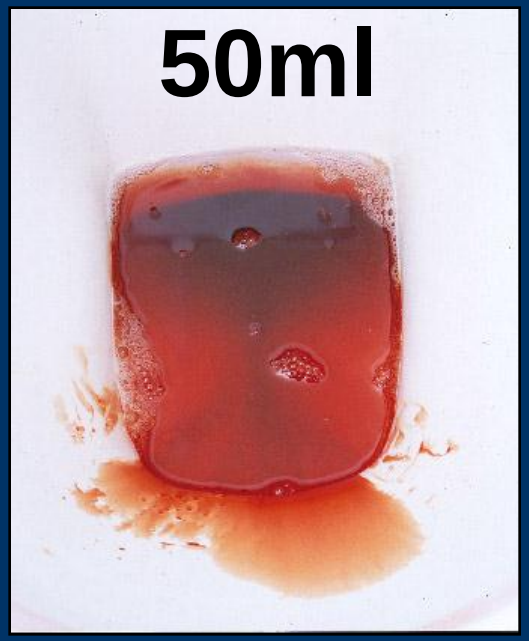
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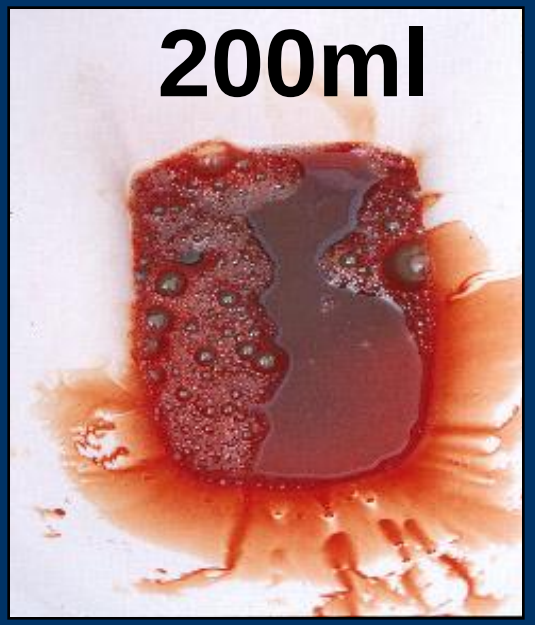
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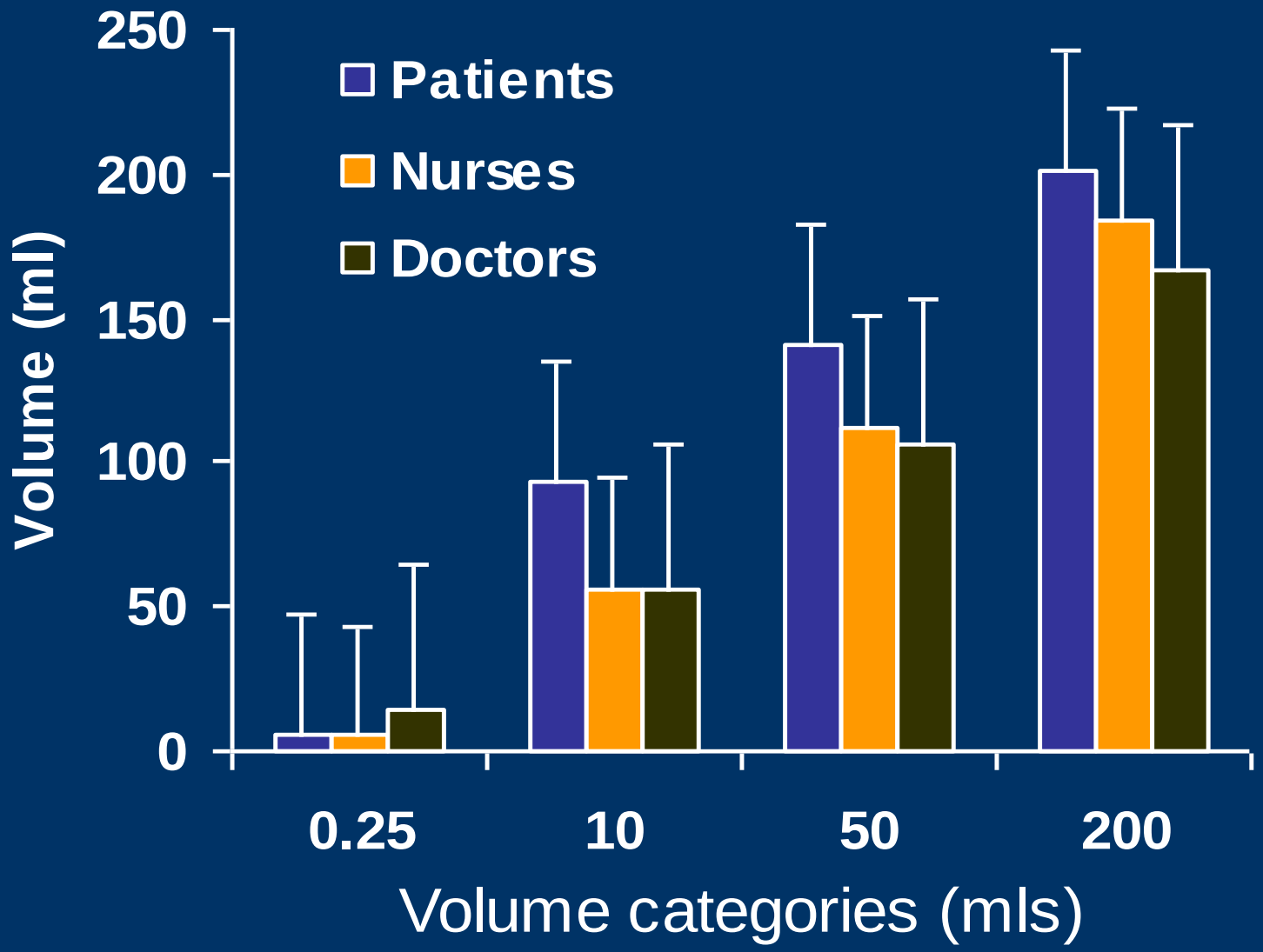
Visual Estimation



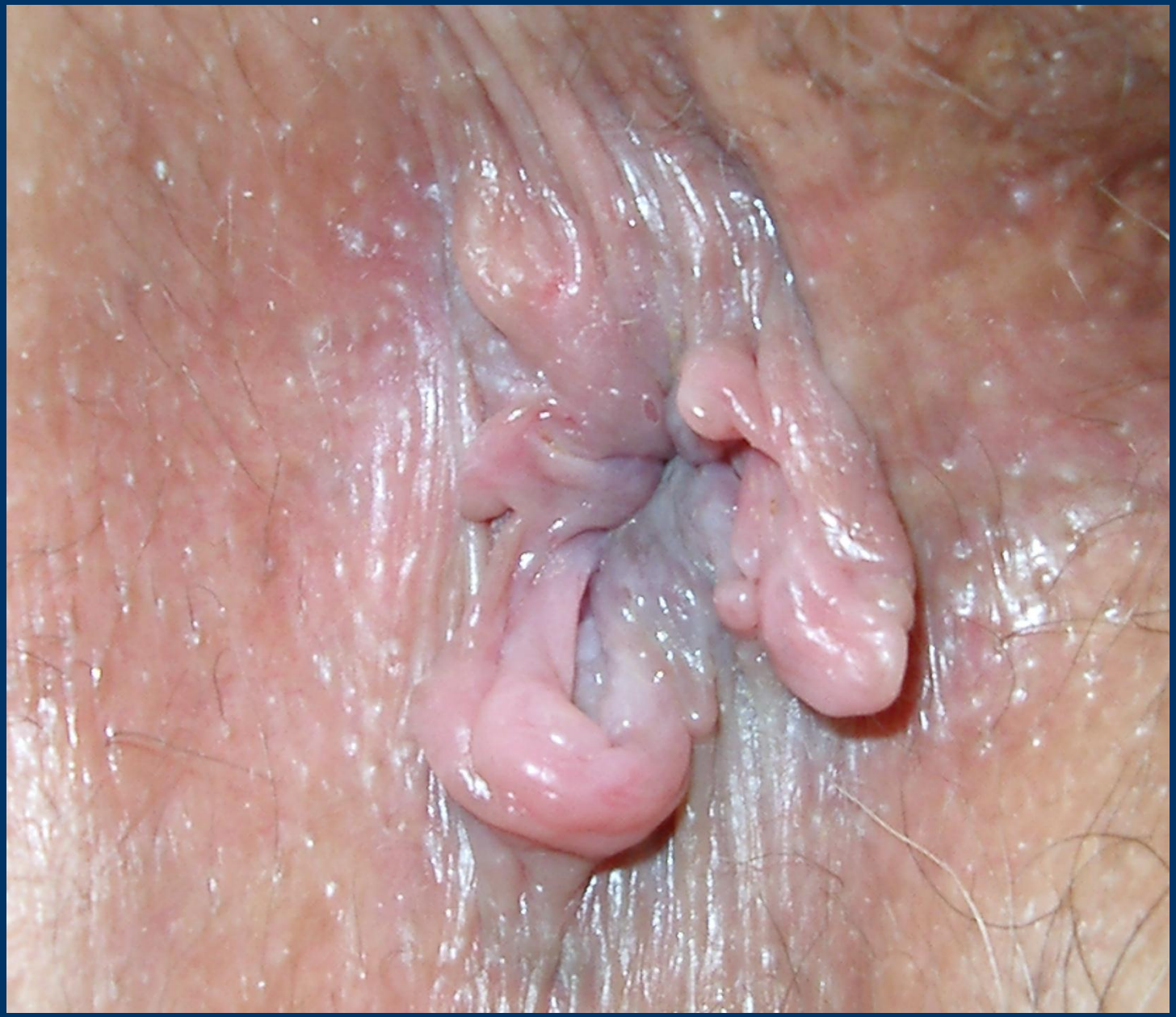
Watch for:

30yr old

6 weeks bleeding and severe pain

Irreducible lump

1. **? thrombosed haemorrhoids (? too long)**
2. **? fissure (? lump)**



Haemorrhoids
Treatment

- Stool softeners
- Stop straining and ‘sitting+reading’

- Pharmacological
  - ? Steroids, antiseptics
  - ? Local anaesthetic
  - ? Suppositories
  - ? GTN

- Invasive treatment

Haemorrhoids
Treatment

- **Steroids - haemorrhoids are not inflammatory**
- **Antiseptics - haemorrhoids are not infective**
- **Local anesthetics**
  - anecdotal evidence of reduced pain

- **Other: Preparation H**
  Shark liver oil and ‘skin respiratory factor’

No randomised controlled trial showing any benefit

Pharmacologic treatment of haemorrhoids

"There are a host of preparations for haemorrhoidal disease and although patients often report symptomatic relief, there is no clear evidence that they are effective

Most contain several ingredients including steroids, topical anaesthetics, and antiseptics. Although topical anaesthetics can give temporary relief for discomfort, they can provoke skin hypersensitivity"

Mortensen and Romanos 1997

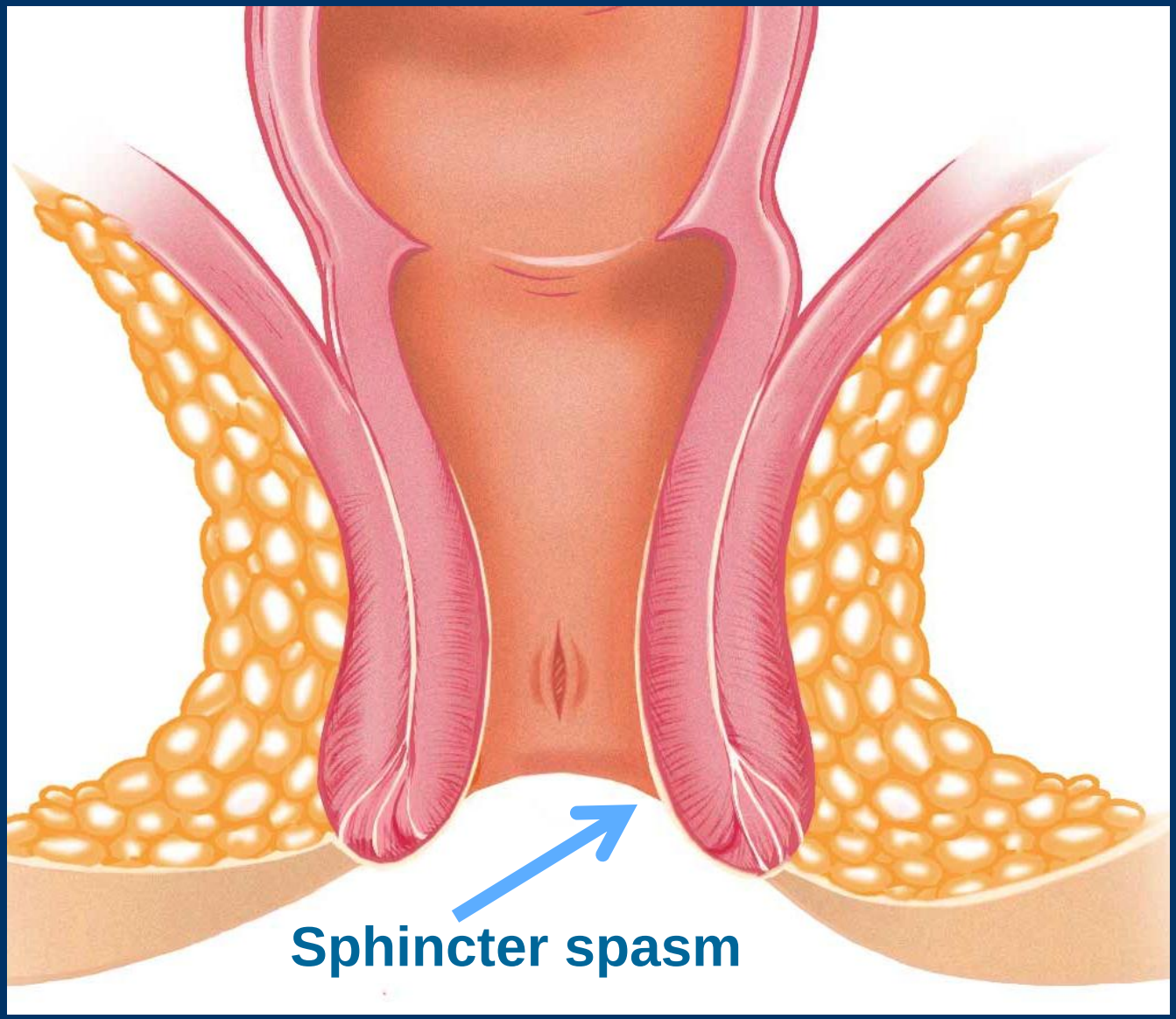
Pharmacologic treatment of haemorrhoids
Steroids and local anaesthetic - Grandfathered

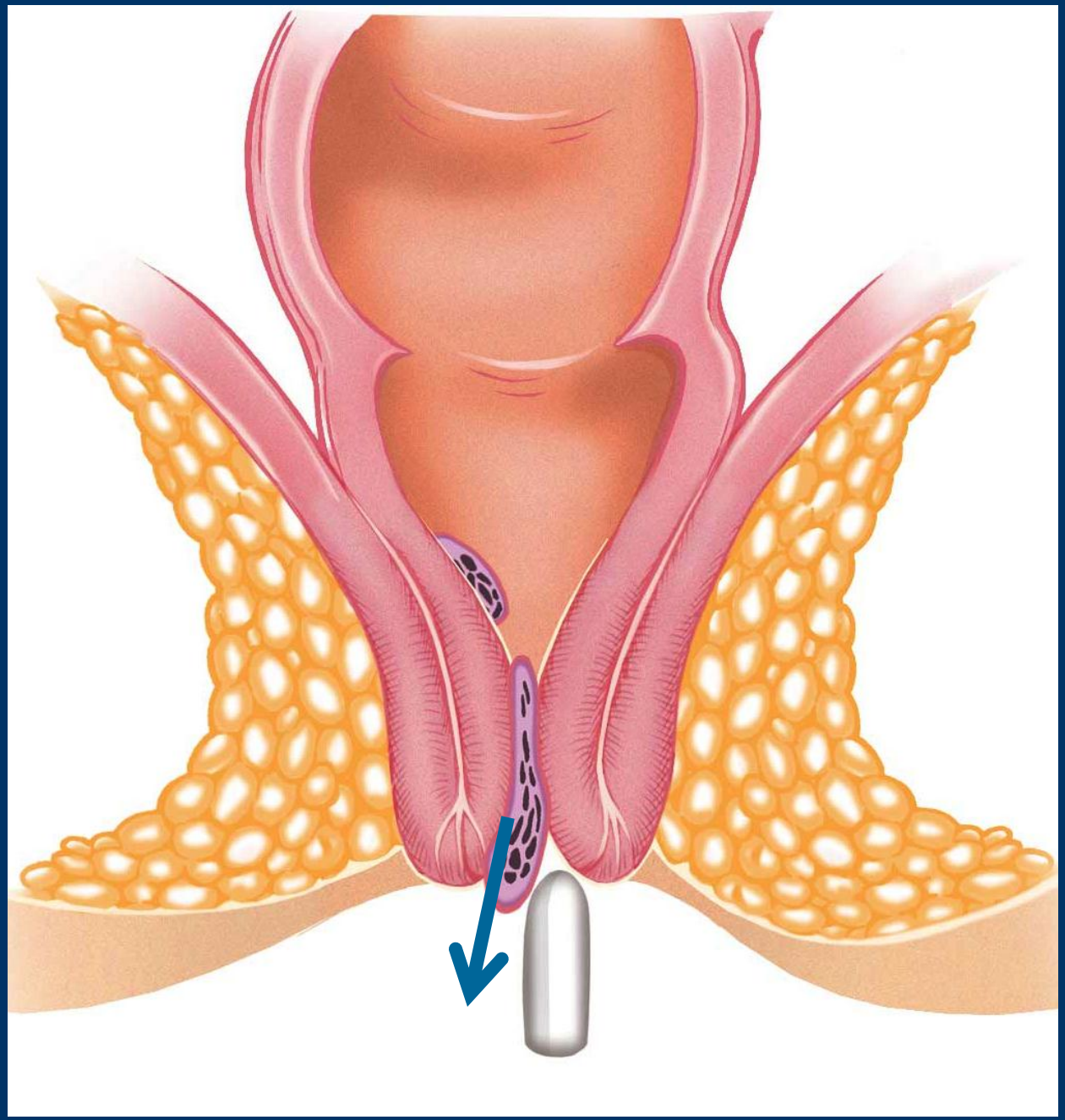
"The efficacy of local applications has rarely been assessed critically"

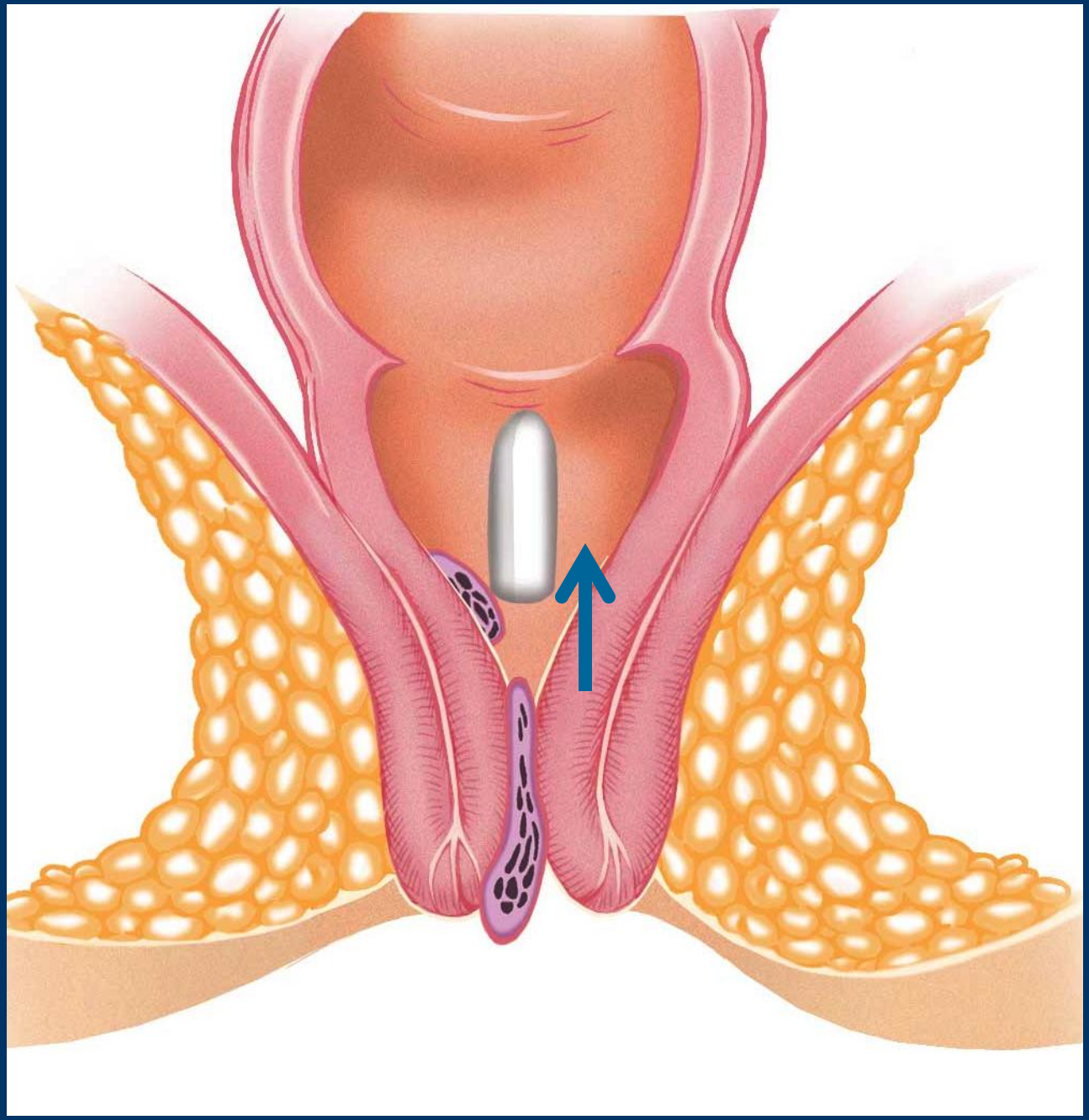
"There is no evidence that..... any of these preparations are better than a simple soft paraffin application"

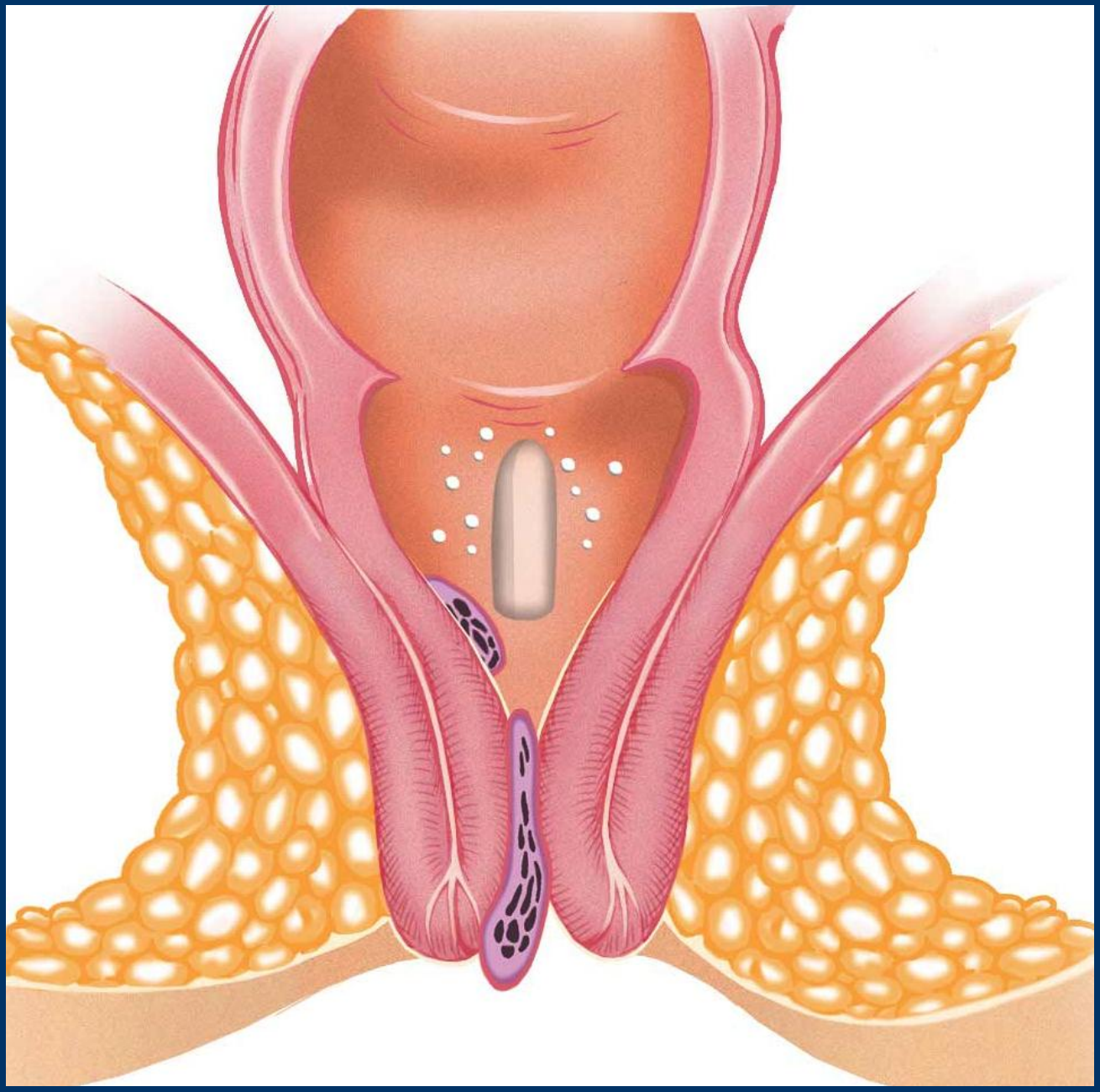
Keighley and Williams
Surgery of the Anus, Rectum and Colon

Suppositories









GTN or diltiazem

Does reducing sphincter tone treat heamorrhoids?

Anal dilatation and sphincterotomy:

*** effective treatment for haemorrhoids**

*** may cause incontinence**

Lord 1968
McCaffrey 1975
Vellacott 1980
Keighley 1979

GTN for haemorrhoids

- Coskun 2001 Non-randomised
- Gorfine 1995 Non-randomised
- Tjandra 2006 Open label, objective scores

Rectogesic for 1st and 2nd degree haemorrhoids

- Prospective open label study with detailed quantitative score in 58 patients

- *Significant improvement in all categories of symptoms:* pain p=0.0024 bleeding p=0.0002 itching p=0.004 throbbing p=0.035 irritation p<0.0001

Tjandra *et al* Colorect Disease 2006

Approved in NZ for treatment of haemorrhoids

GTN post-haemorrhoidectomy

- 4 randomised placebo-controlled trials showing *pain reduction* after haemorrhoid surgery:
  1. Wasvary 2001 39 patients
  2. Devita 2004 30 patients
  3. Hwang 2003 110 patients
  4. Tan 2006 99 patients

- Hwang[3] and Tan[4] showed significantly faster *wound healing*

Approved for post-haemorrhoidectomy pain and healing

GTN for *thrombosed external haemorrhoids*

150 patients randomised to:

- GTN
- incision
- radical excision

Day 4 pain was:

- least with radical surgery
- less with GTN than incision ($p<0.01$)

Cavcic *et al* Dis Colon Rect 2003

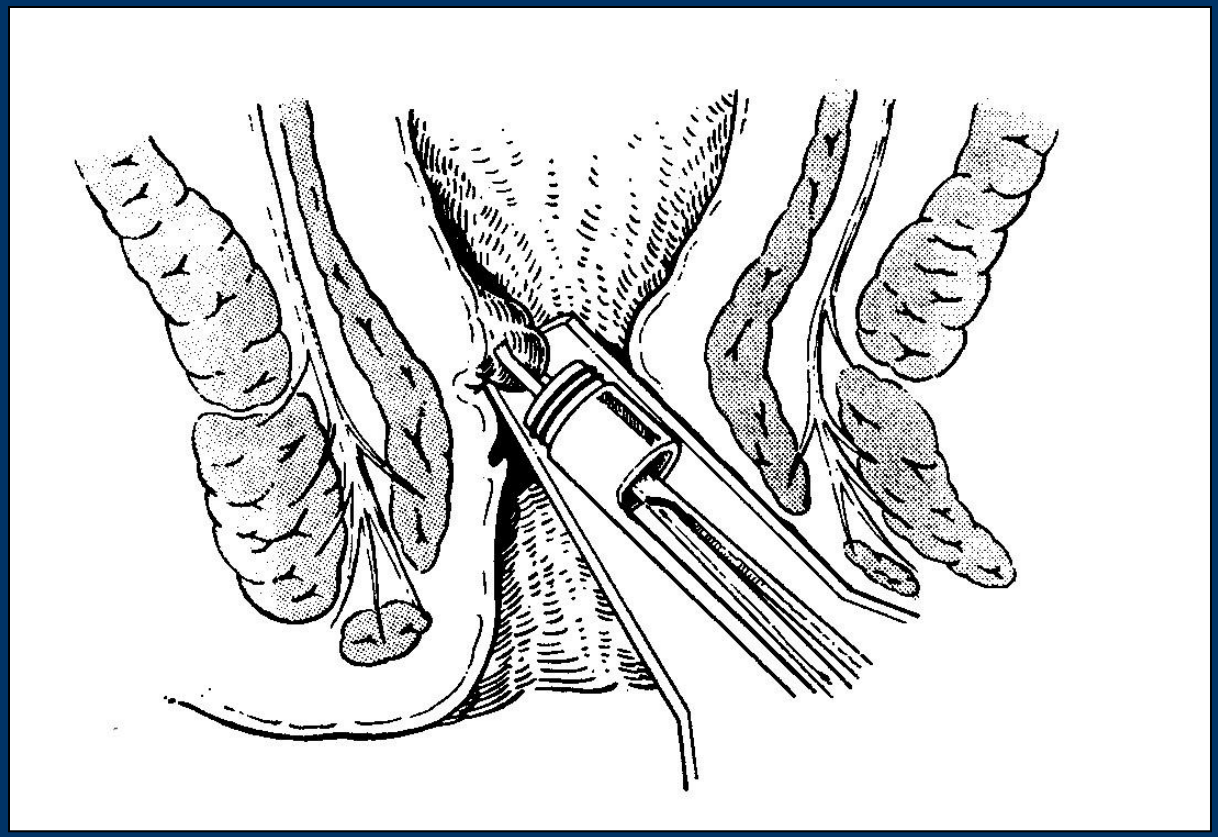
Haemorrhoids

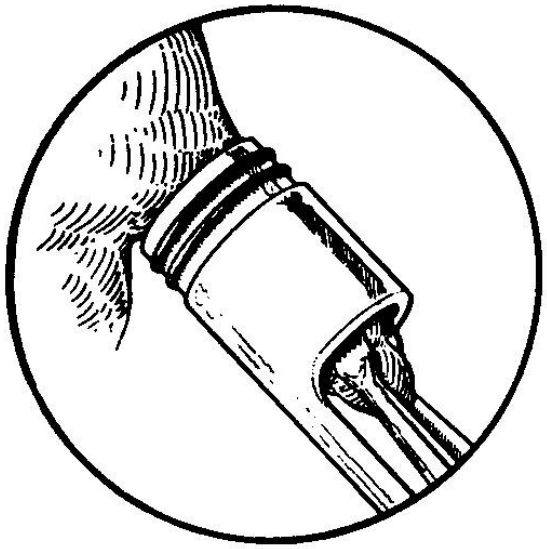
Treatment – Failed conservative Rx

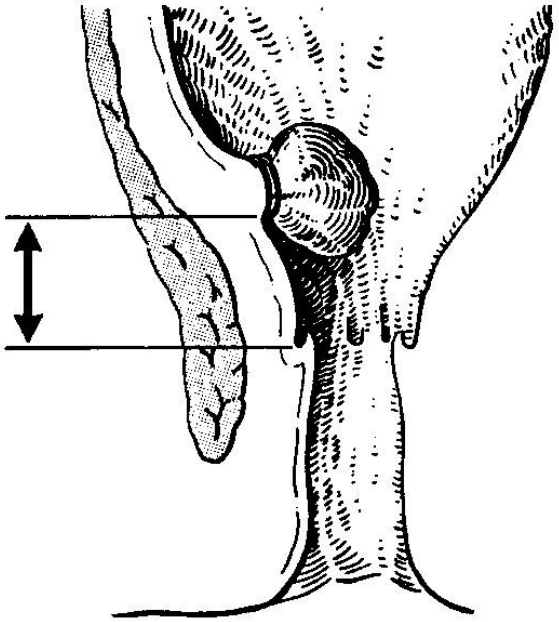
- Stool softeners
- Stop straining
- Topical therapy: GTN -Rectogesic

- **Rubber banding**
- **Stapled haemorrhoidopexy**
- **THD haemorrhoid ligation**
- **Open haemorrhoidectomy**

Rubber banding: 1st, 2nd, some 3rd degree

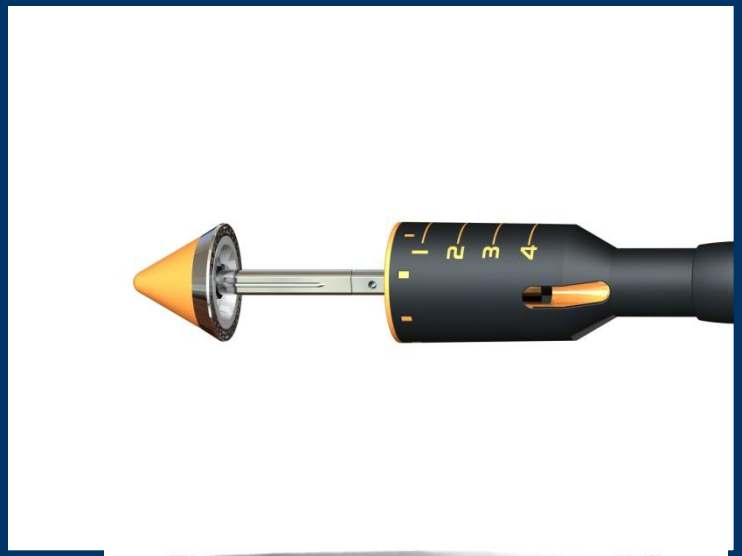






Haemorrhoidectomy or Stapled Haemorroidopexy ?


1
2
3
4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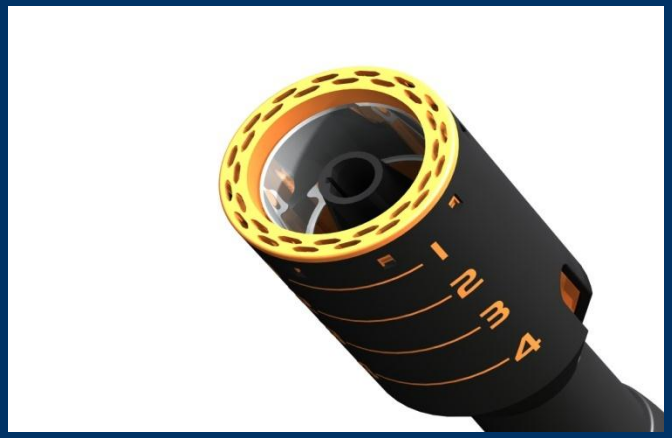
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	Haemorrhoidx	Stapled
Pain	4 weeks	Minor
Time off work	7-10 days	2 days
Failure	2%	20%
Complications	Rare: - anal stenosis - sphincter injury	Uncommon: - pain, urgency - sphincter injury

Haemorrhoids
Treatment algorithm

- Stool softeners
- Stop straining and ‘prolonged sitting’
- No Local anaesthetic or steroids
- No suppositories
- Rectogesic for symptoms

- Surgery – banding, HAL, stapled haemx, haemorrhoidectomy

The End (figuratively)