Colorectal Surgery
Benign Anal Conditions....

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The next 45 minutes... 7 common conditions

- Fissure in ano
- Haemorrhoids
- Fistulae
- Pilonidal sinus
- Pruritus ani
- Rectal prolapse
- Faecal Incontinence

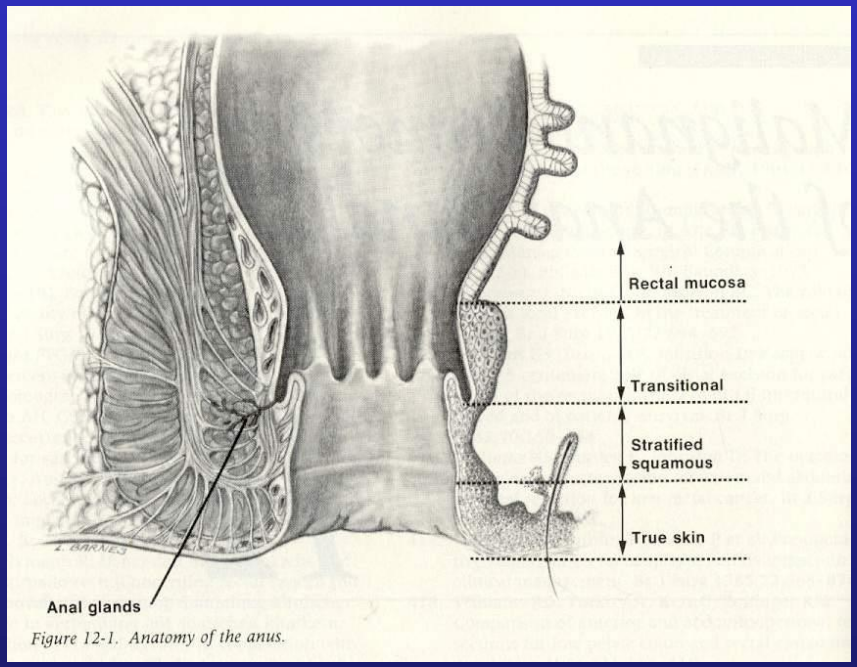
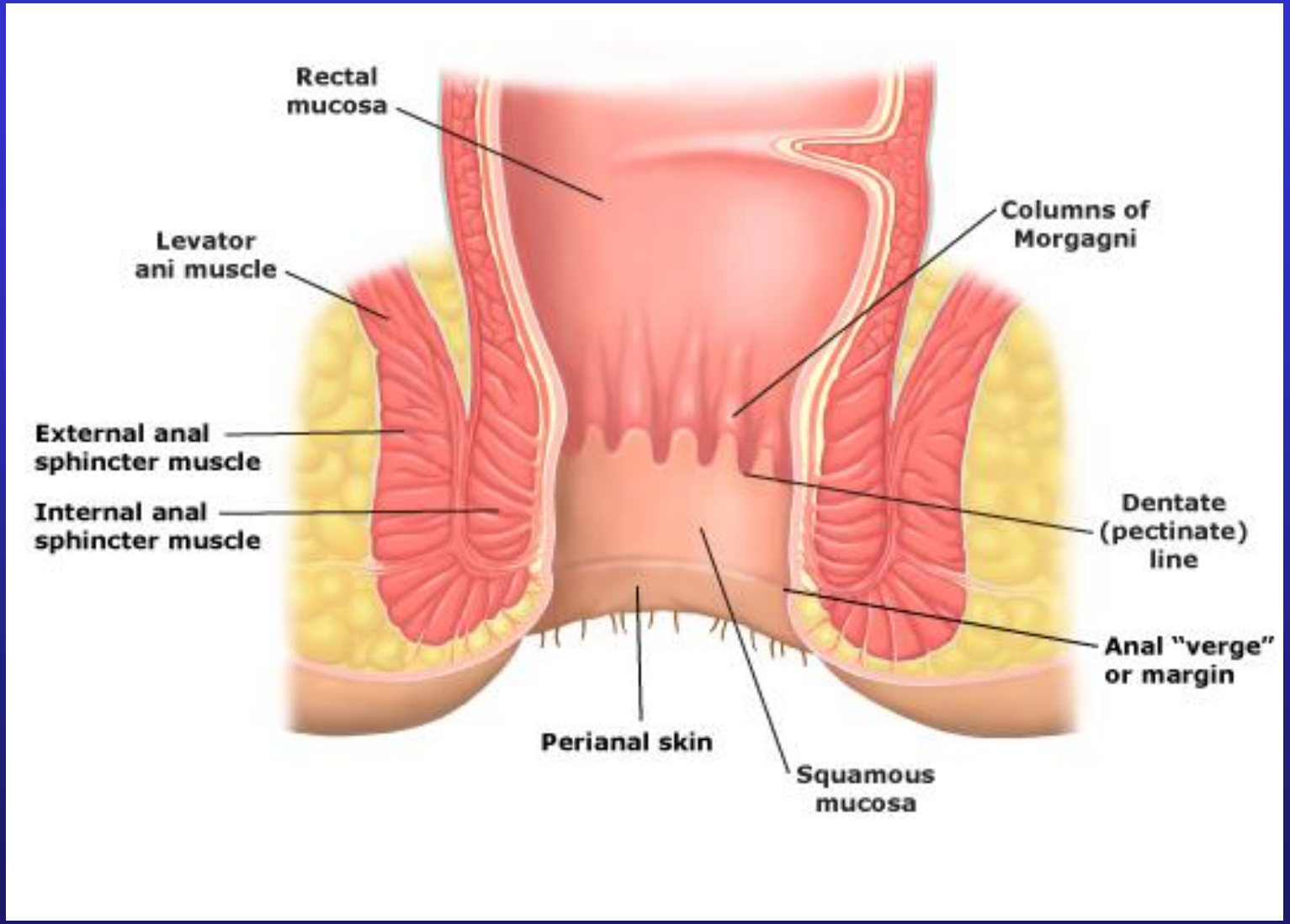
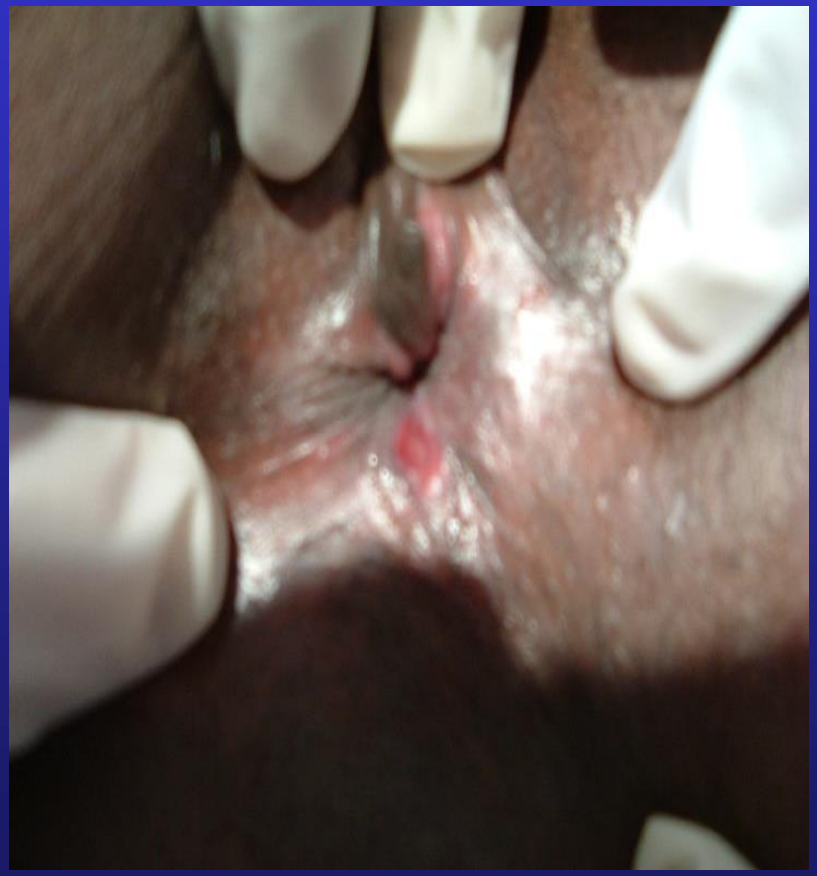


Figure 12-1. Anatomy of the anus.


Rectal mucosa
Columns of Morgagni
Levator ani muscle
External anal sphincter muscle
Internal anal sphincter muscle
Dentate (pectinate) line
Anal "verge" or margin
Perianal skin
Squamous mucosa

Anal fissure

- Ischaemic ulcer
- Posterior midline anal canal



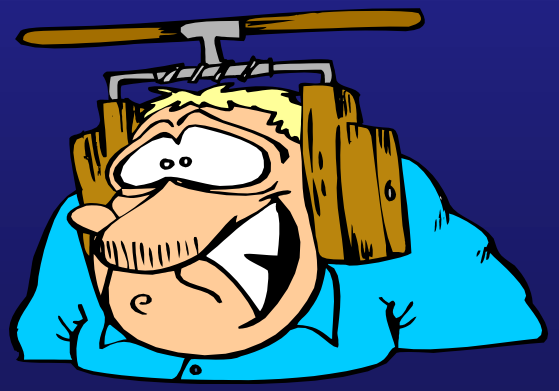
Aetiology

- Constipation
- Postpartum females (anterior fissure)
- Crohn's (multiple fissures)

- **Internal anal sphincter spasm**

Presentation

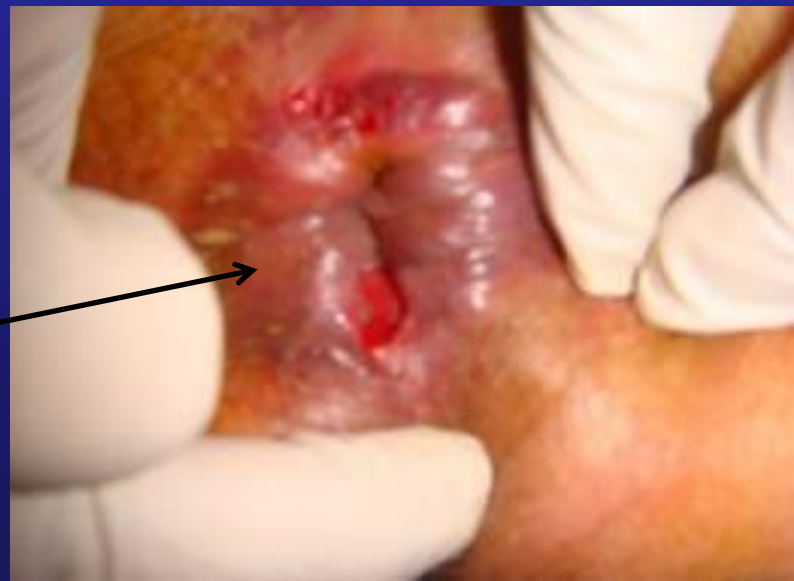
- Severe pain on defaecation
- Blood pr



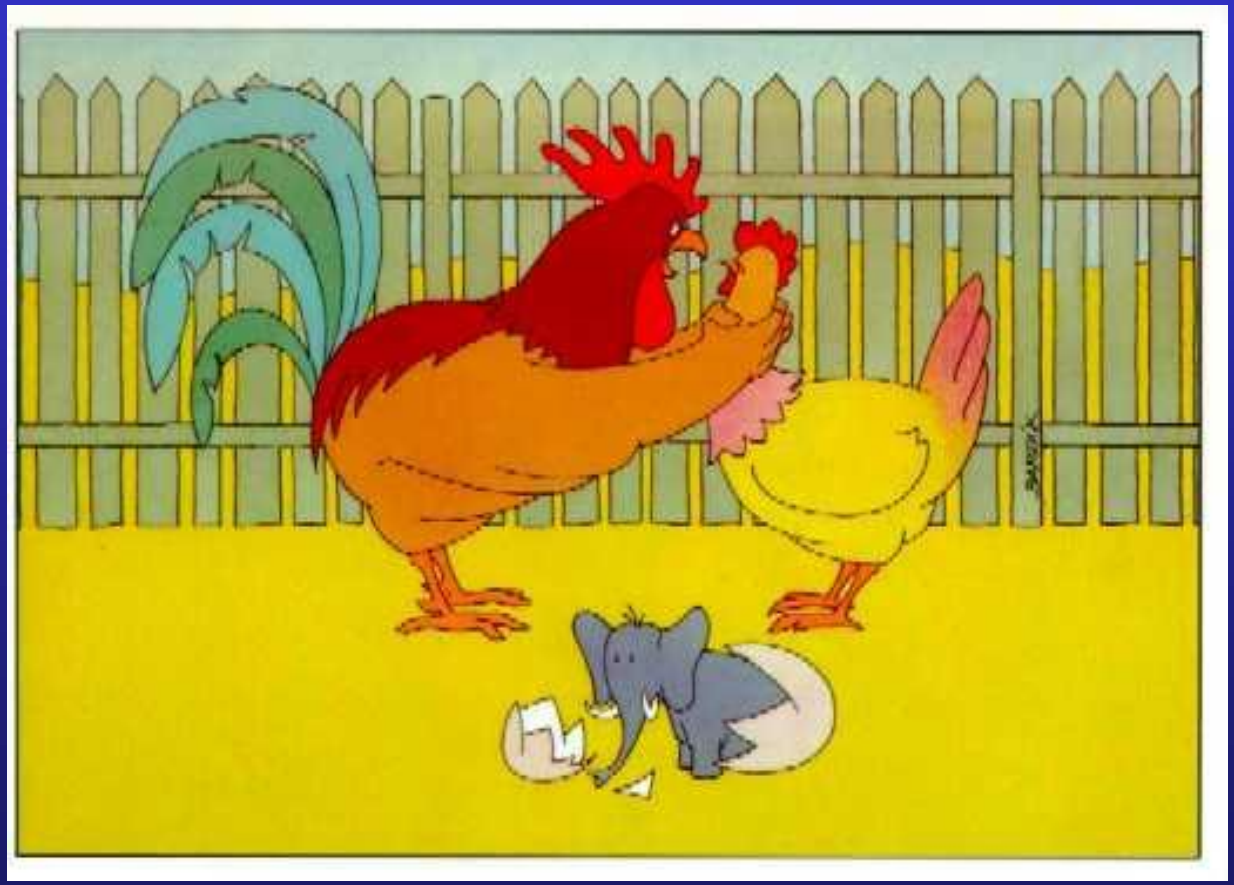
Management (Medical)

- Dietary (Movicol)

- GTN (0.2 – 0.4 %) **38 % headaches**
- Diltiazem (2 %)
- Botulinum toxin A



Surgery... Caution !



Surgery

- Anal stretch (**Incontinence > 30 %)**
- Lateral internal sphincterotomy
  - Morbidity
  - 10 - 20 % flatus incontinence
  - 10 - 20 % mucus discharge
  - Low recurrence

Caution

- Post partum women & women with low pressure fissures
- **Advancement flap** as opposed to spincterotomy (to avoid incontinence)

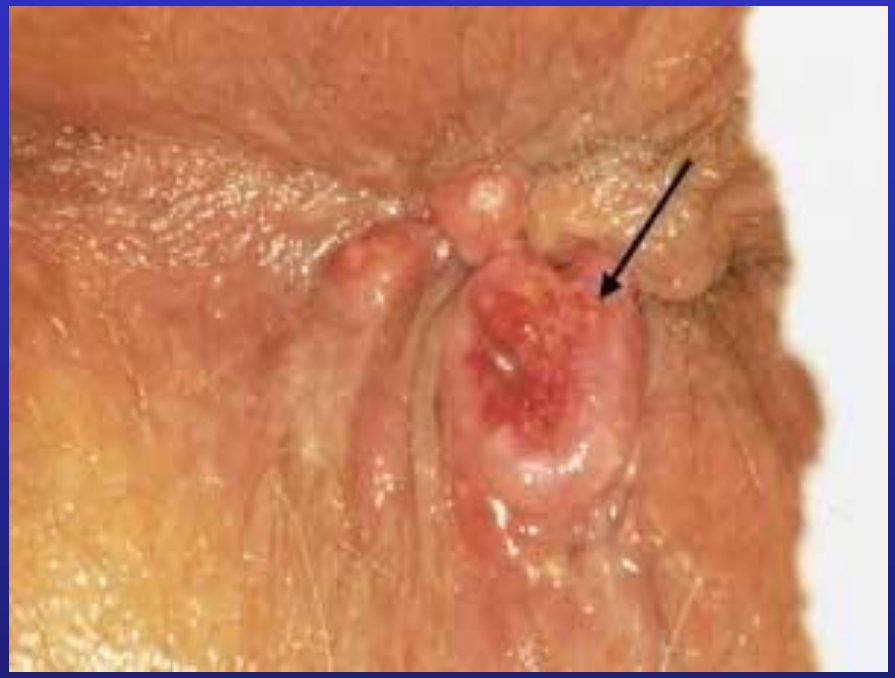
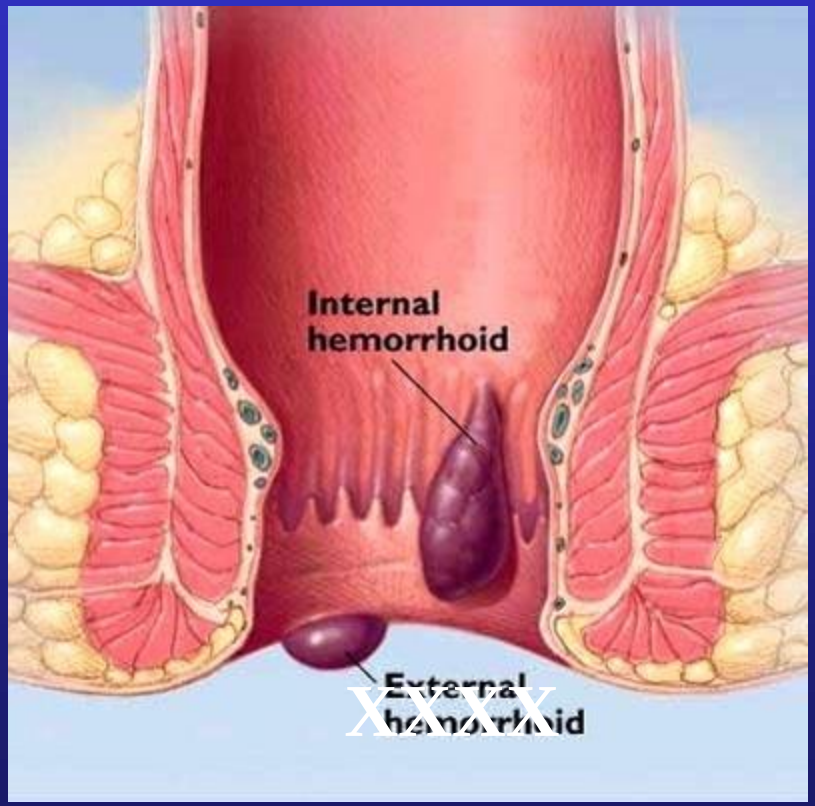


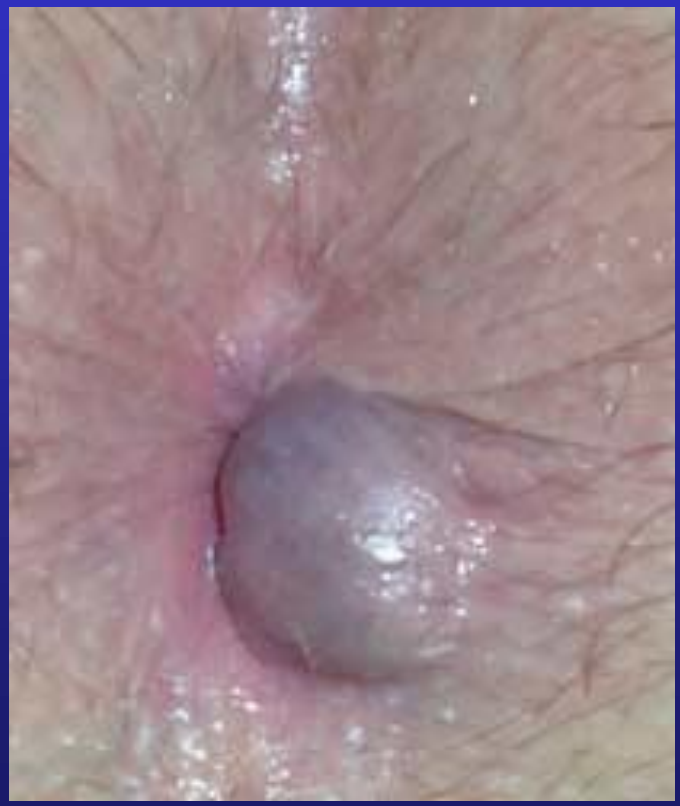
Photo. Cancer Anal

Haemorrhoids

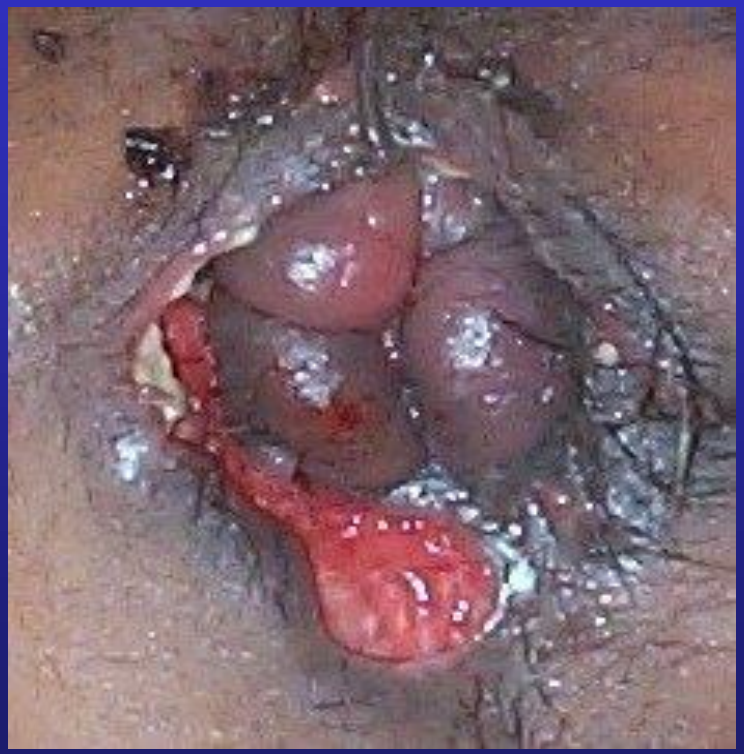
- Common **50 % population > 50 years**
- Vascular cushions (functional importance in maintenance of continence)

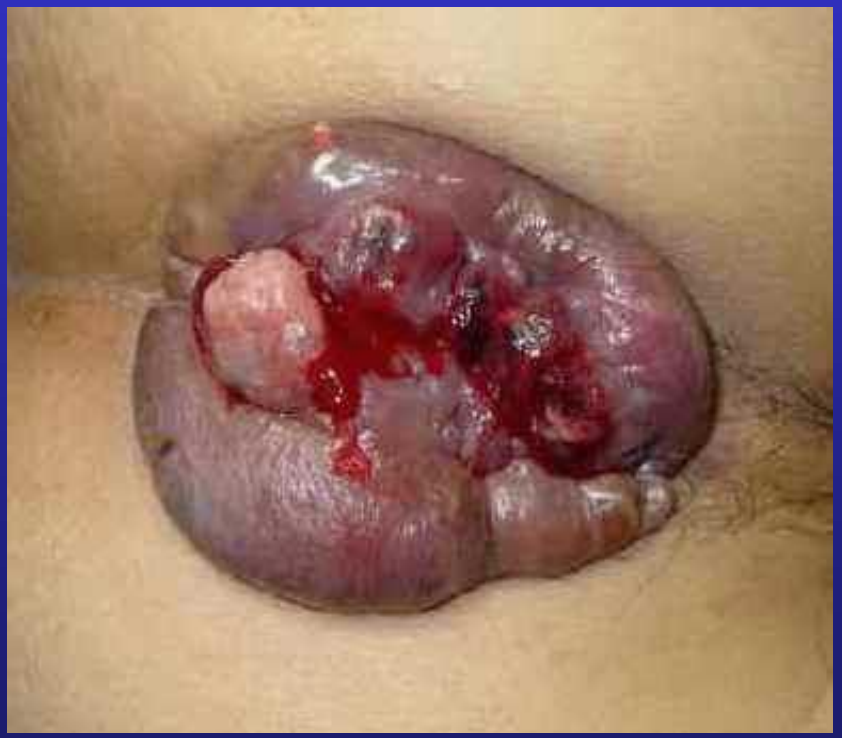
Piles





Piles?



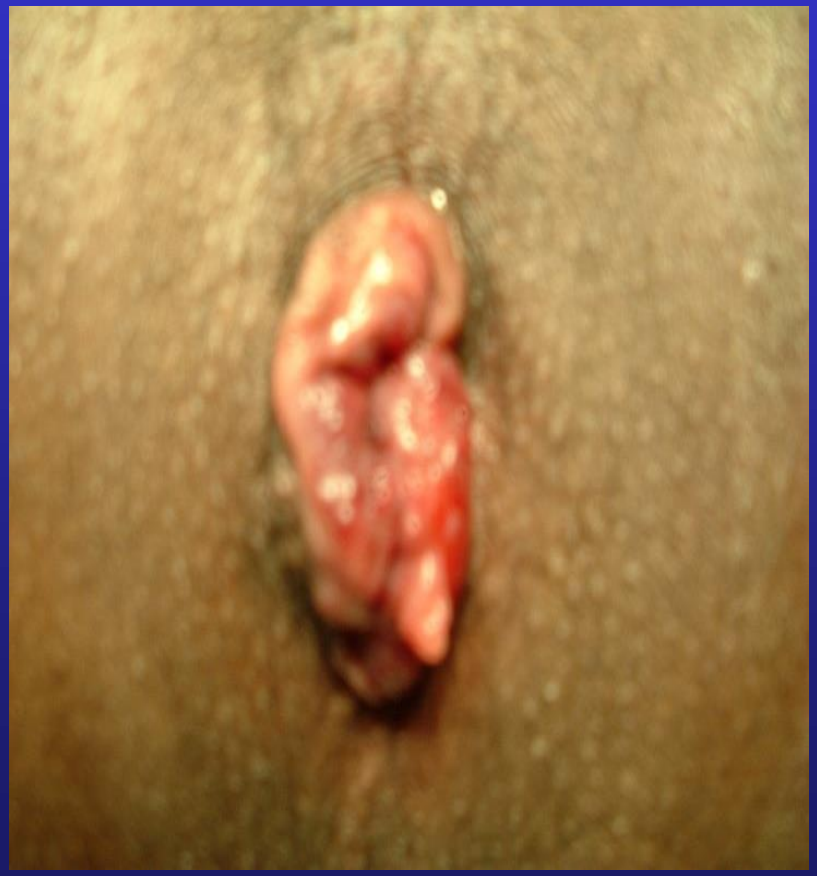


Haemorrhoids aetiology

- Straining at stool
- Prolonged perineal descent (sitting on the loo)
- Familial tendency
- Poor connective tissue support

Presentation

- PR bleed
- Prolapse
- Discomfort
- Pain suggests thrombosis
- **Bleeding > 35 (exclude Ca)**



Treatment

- Depends on severity and symptoms
  - **First degree: doesn't descend, may bleed**
  - **Second degree: protrudes below dentate line, return spontaneously**
  - **Third degree: requires manual reduction**
  - **Forth degree: irreducible**

Management

- **Patient education**
- Dietary manipulation
- Avoid straining
- Avoid reading on the loo !

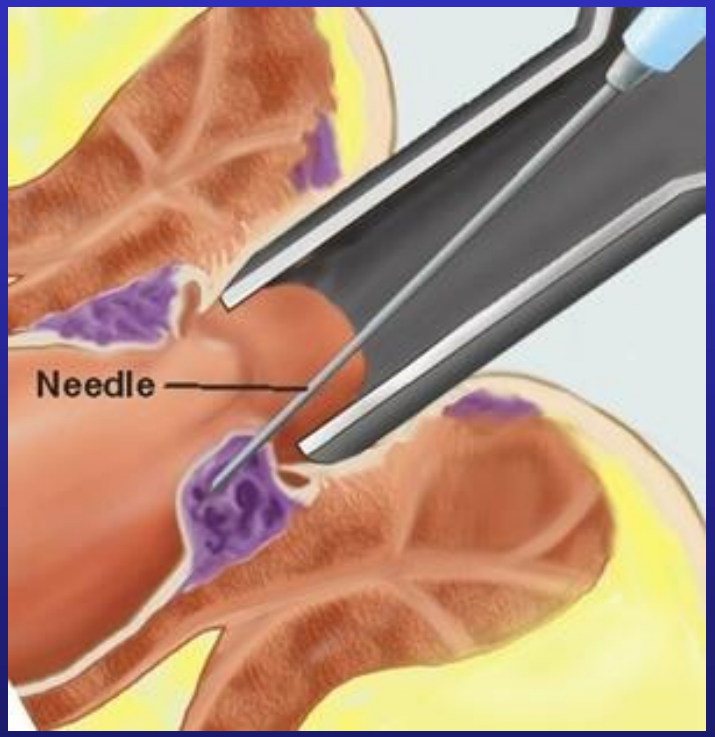
Treatment

- Sclerotherapy
- Banding

- Haemorrhoidectomy
- Stapled haemorrhoidectomy (PPH)
- THD / HALO

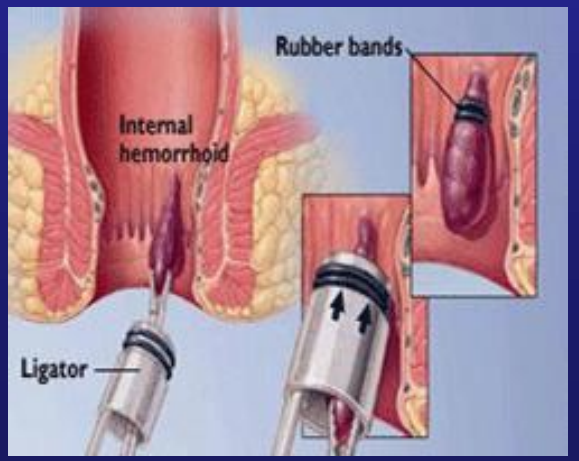
OPD management: Sclerotherapy

- Oily Phenol 5%
- Nut allergy
- avoid anterior injection in males (prostatitis)
- Only for small piles



OPD management: Banding

- More effective than sclerotherapy
- Discomfort 20 mins after procedure
- ‘Lifts’ piles

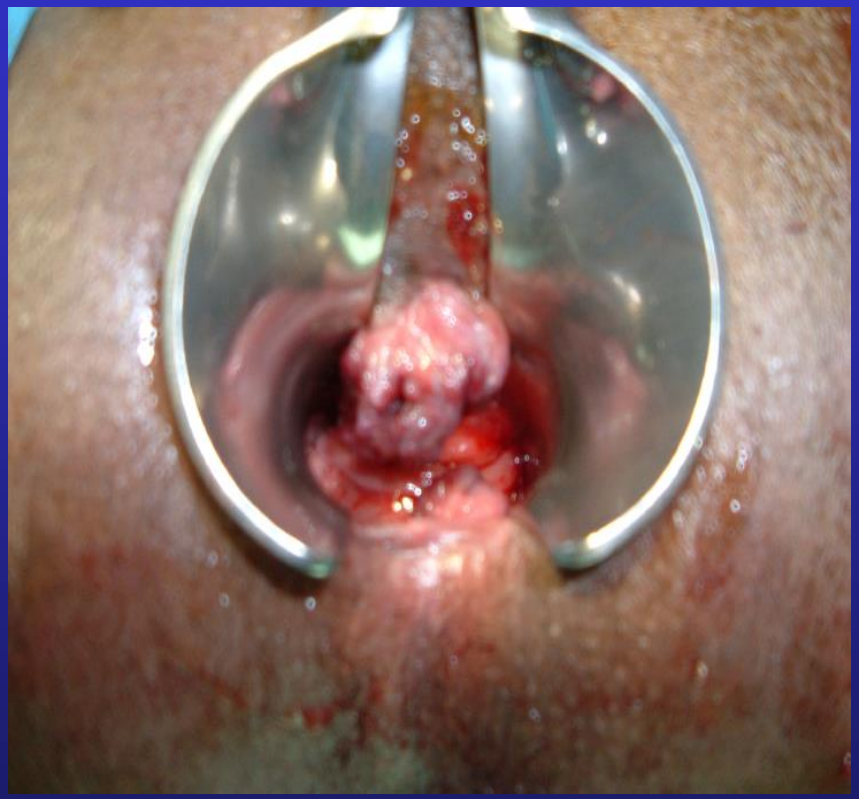


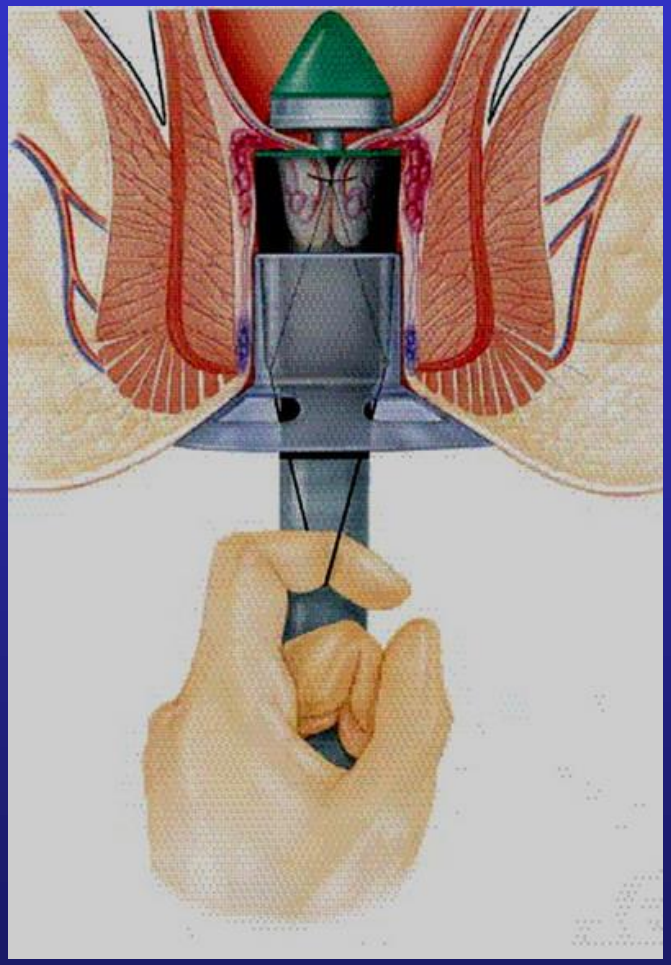
Haemorrhoidectomy

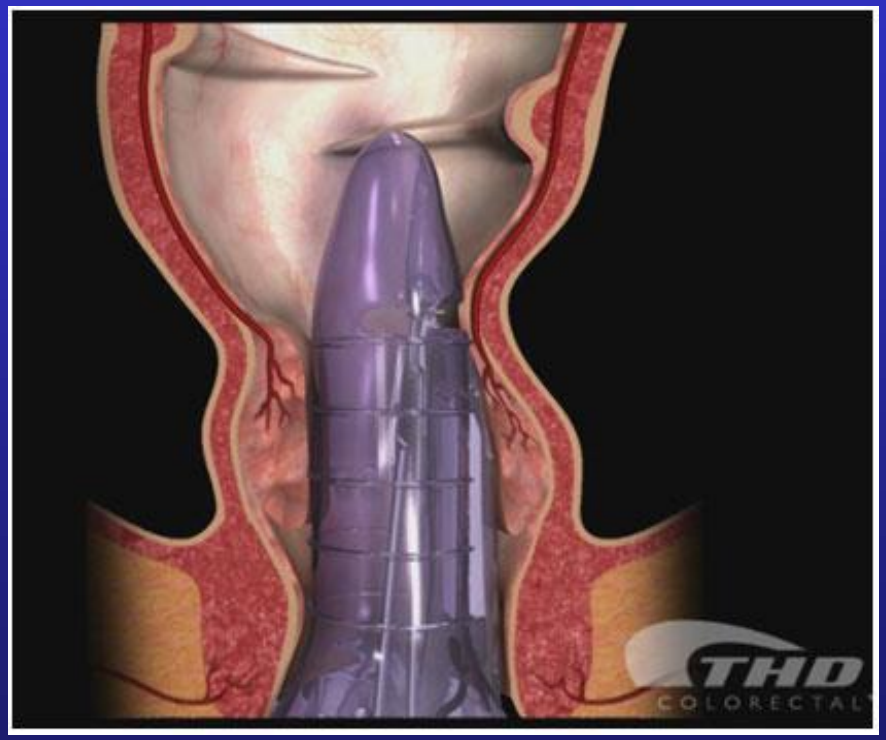
- Conventional Milligan Morgan
- Stapled haemorrhoidectomy
- Haemorrhoidal artery ligation (HALO)

Haemorrhoidectomy c**onsent**

- Pain
- Open wounds
- Flatus incontinence
- Anal stenosis
- **Post op laxatives & Metronidazole**






THD
COLORECTAL

A common question...

When do I refer PR bleeding and piles?

Don’t assume PR bleeding is piles esp in over 40’s

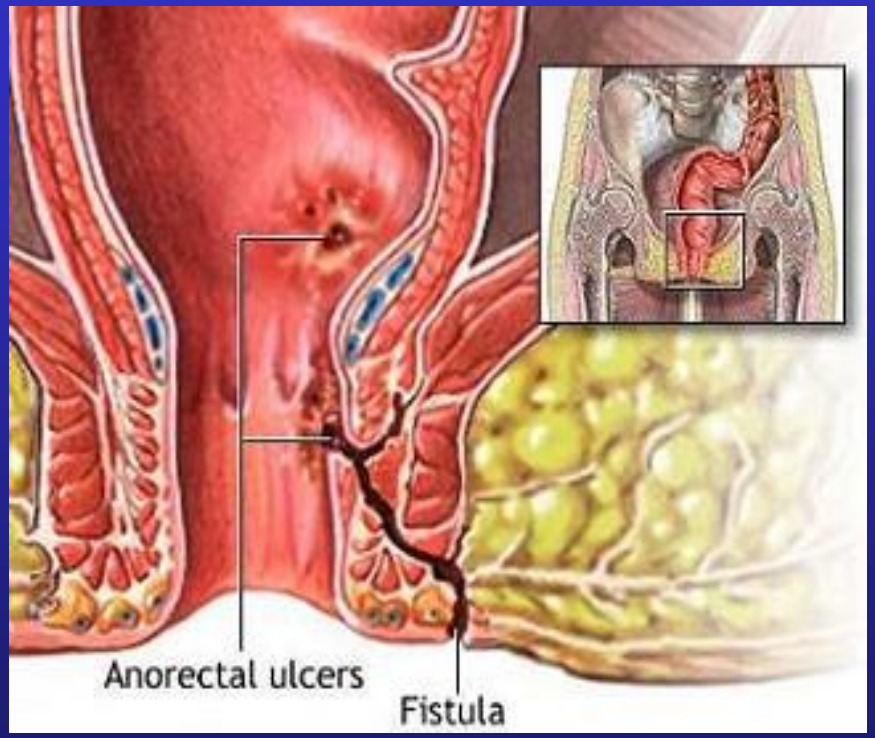
Have a low threshold for endoscopic examination

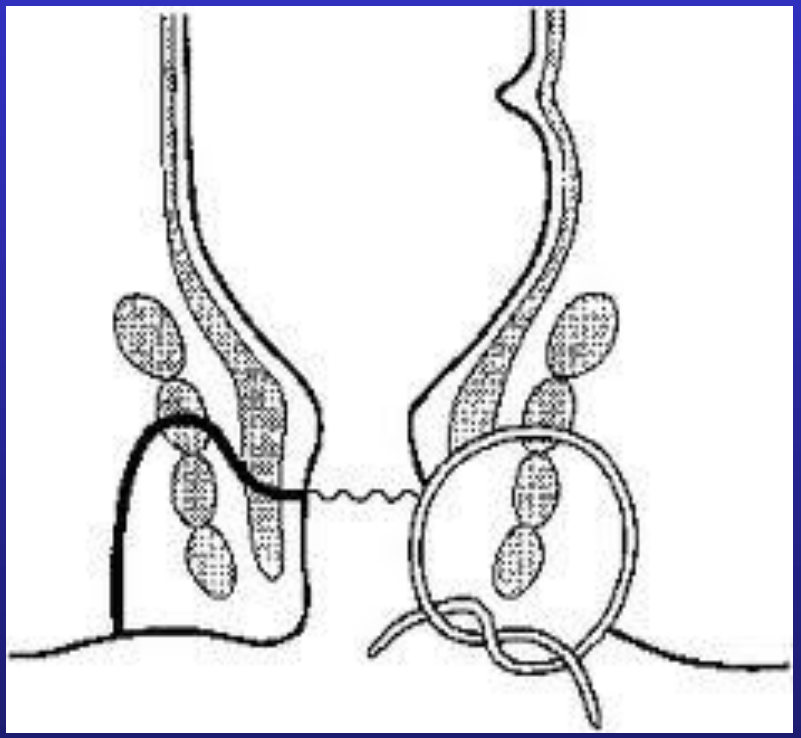
Piles are completely benign and don’t need treatment unless patients quality of life is affected

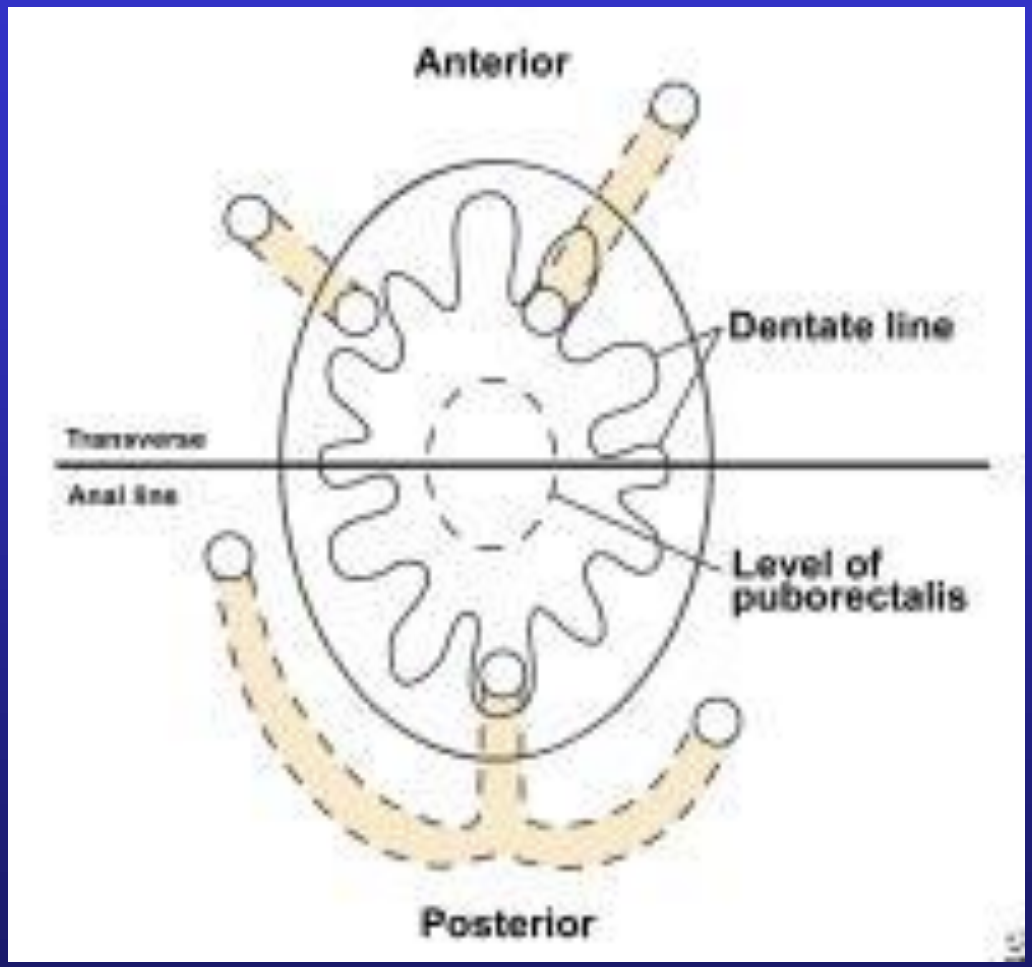
A plee...

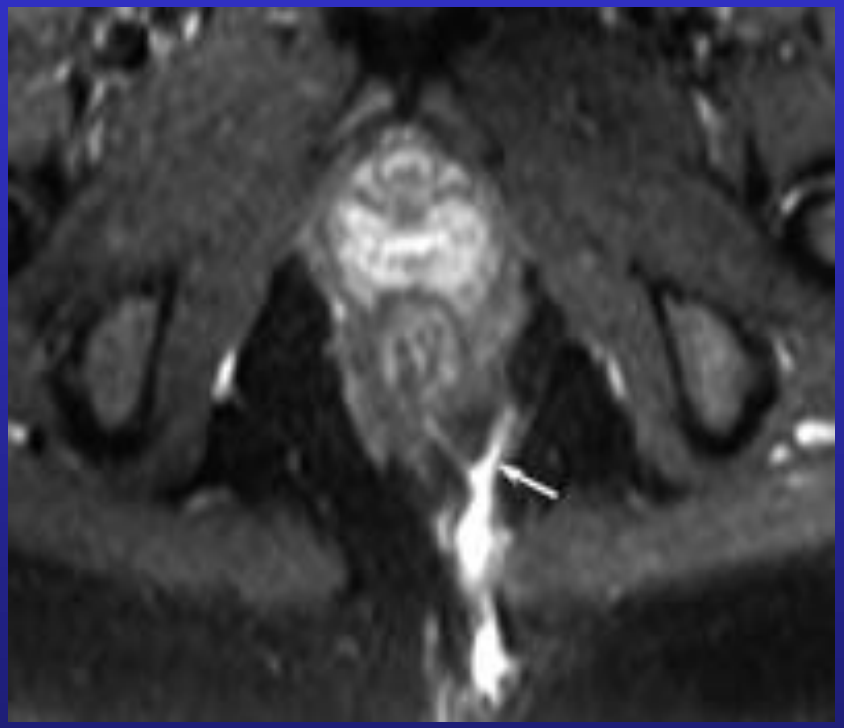
- No FOB’s
- No CEA

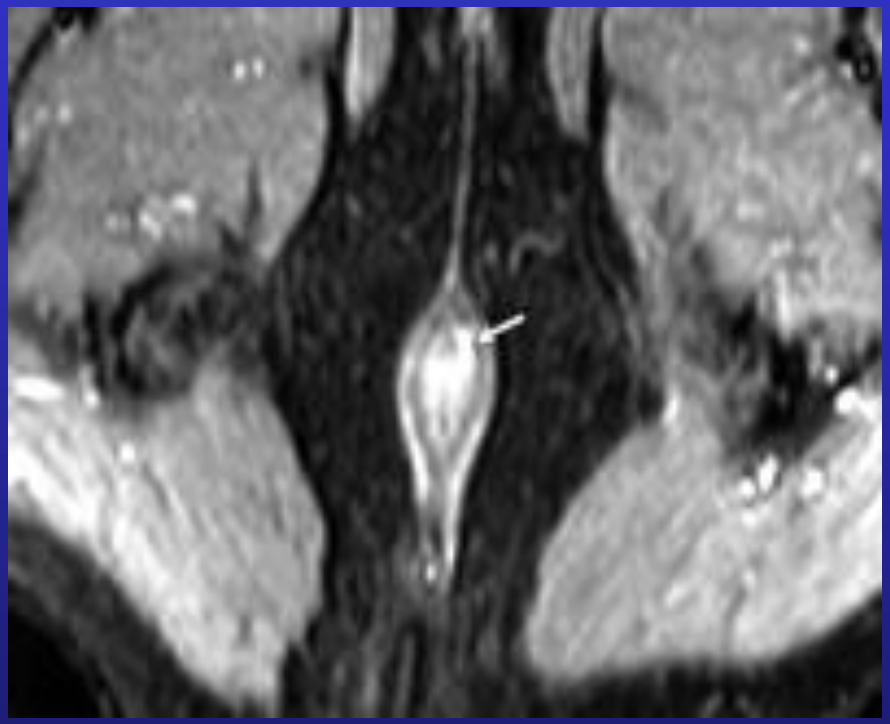
Fistula in ano






Anterior
Dentate line
Transverse
Anal line
Level of puborectalis
Posterior

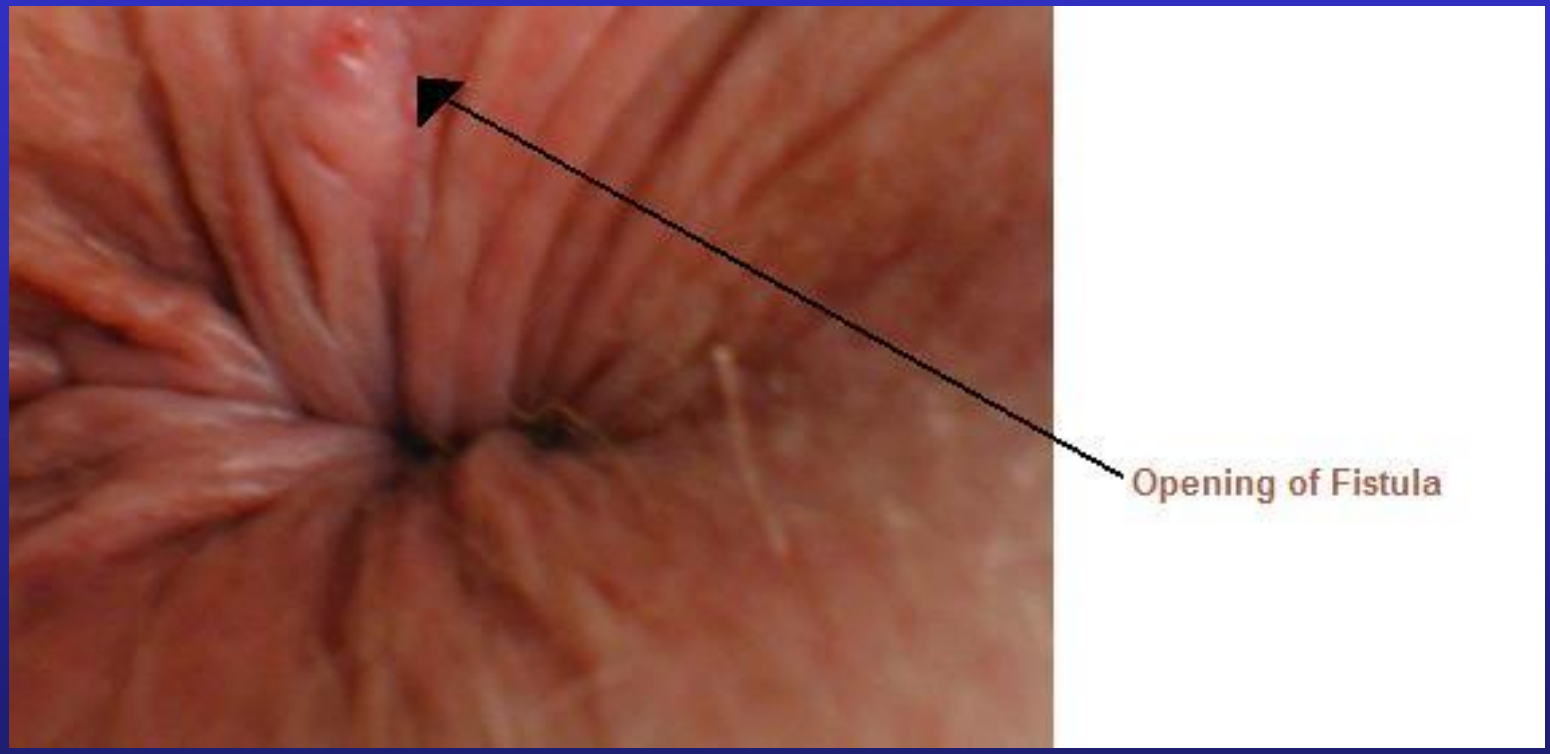


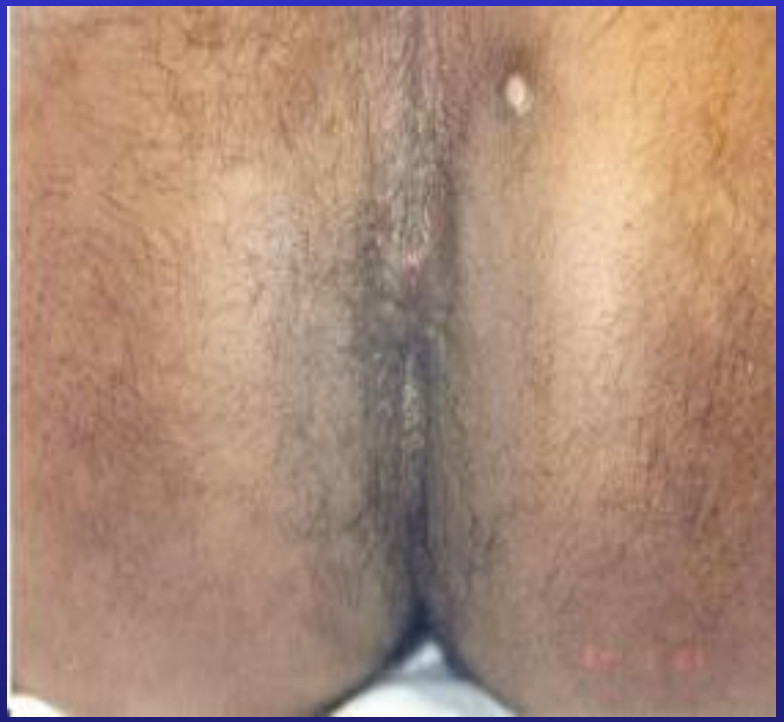


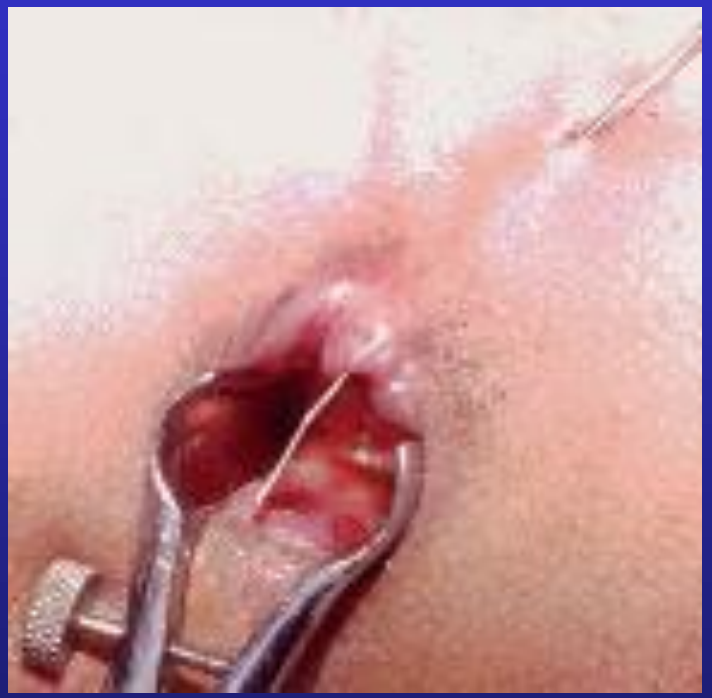
Treatment options

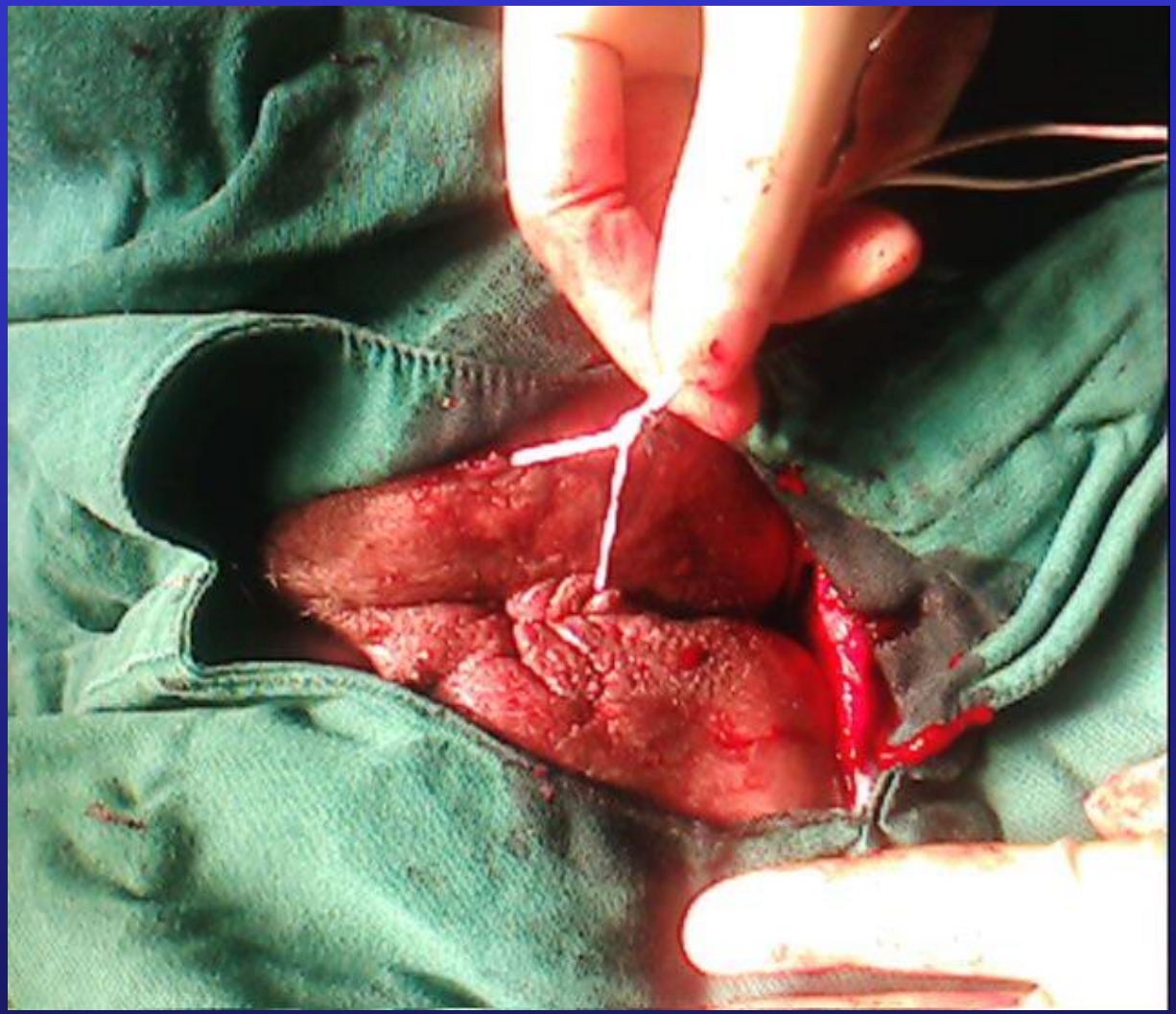
- Conservative
- Lay open: the only cure for a fistula
- Seton

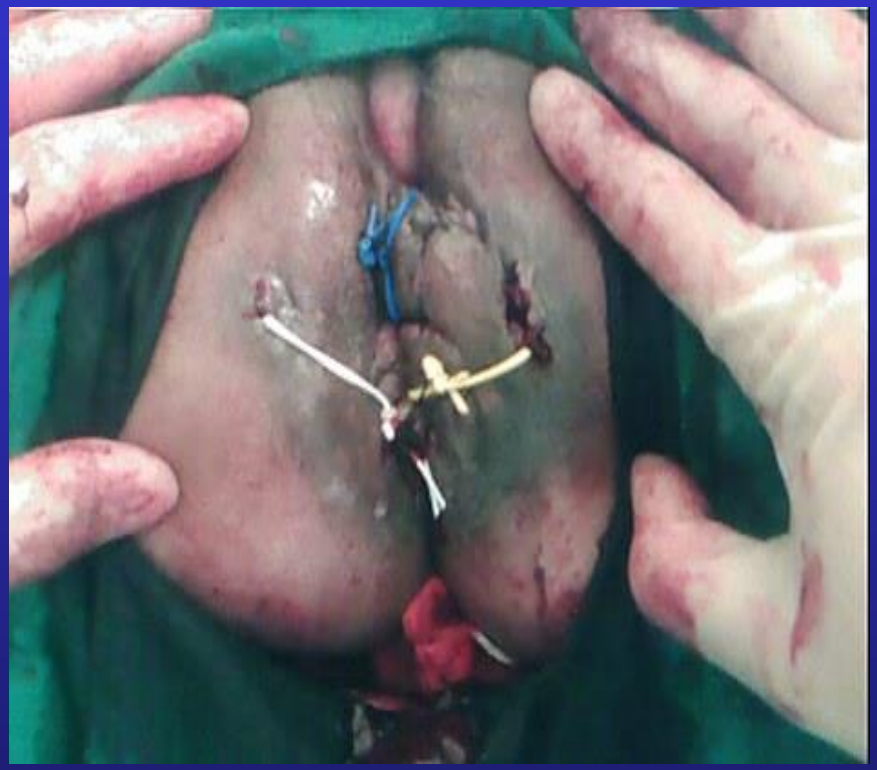
- Fibrin glue
- Advancement flap
- LIFT

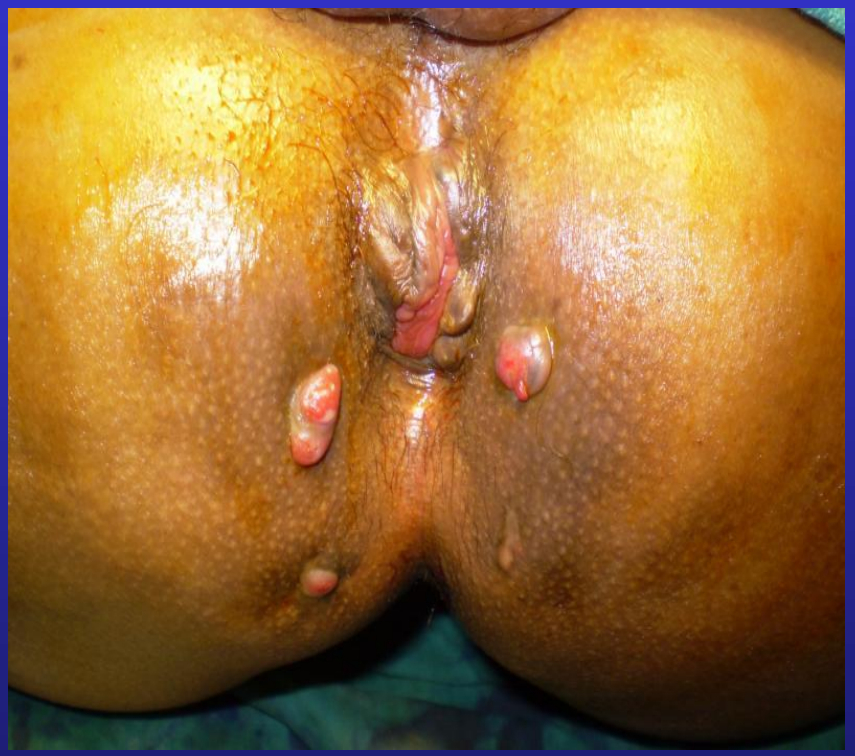

Opening of Fistula











Diagnosis...??

Pilonidal sinus

- Hair within perinatal cleft
- Umbilicus
- Webshaft of finger spaces
- Hirsuit

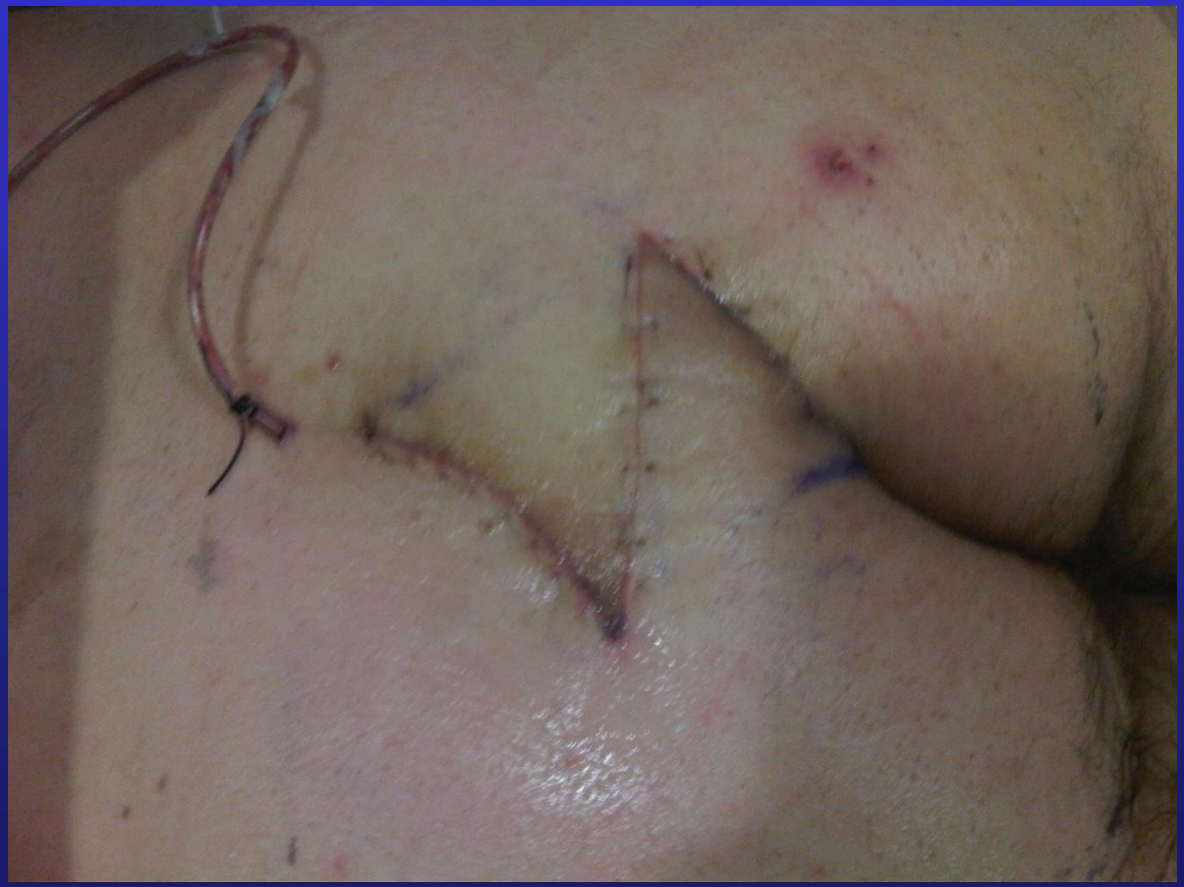
Presentation

- Asymptomatic
- Recurrent discharge and pain
- Abscess

Management

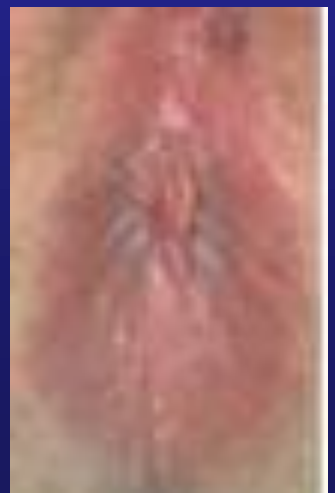
- **Minimalistic approach**
- Regular shaving
- Acute drainage
- Lateral approach (away from midline)
- Karydakis / Bascombe
- Rhomboid flap

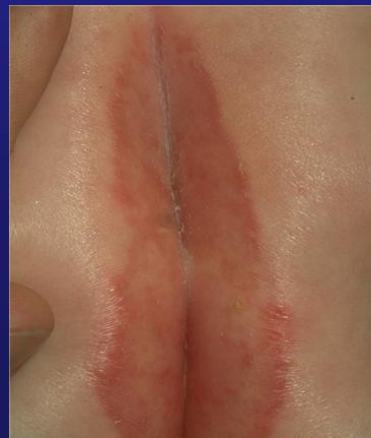
Rhomboid flap



Pruritus ani

- Benign: piles, fistulae, polyp
- Dermatological
- Infection
- Neoplasia





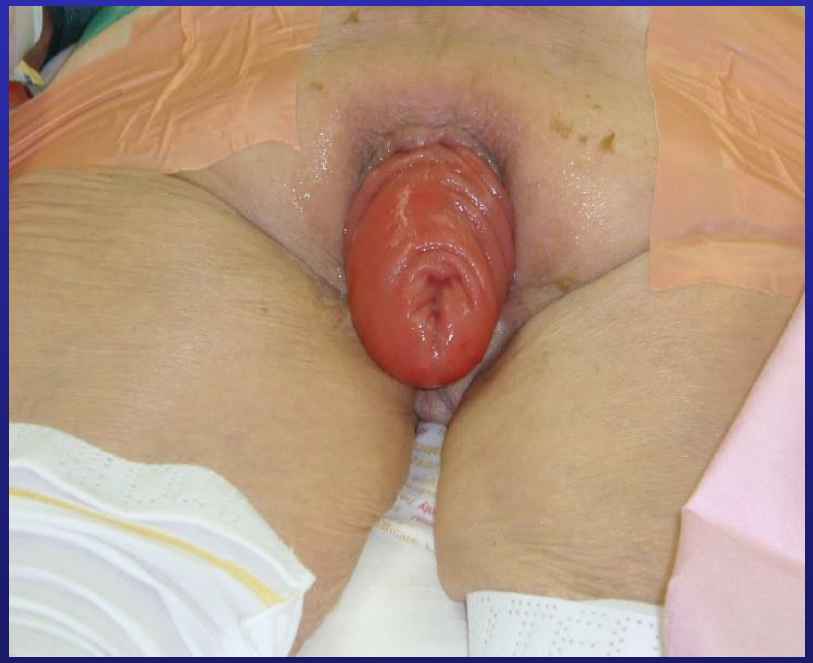
Management

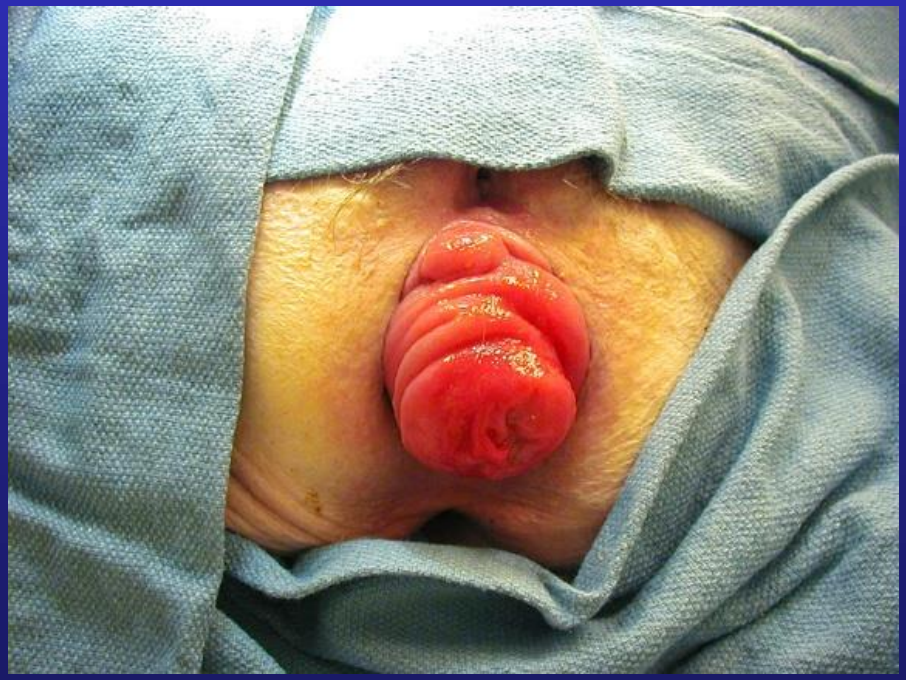
- Attempt to identify precipitating cause
- Avoid scratching
- Avoid excessive cleaning (**bidet ideal**)
- Avoid perfumed soap
- Avoid toilet paper

Management

- Barrier creams in combination with temporary steroid use
- **Epaderm & Betnovate** (max use 10 days)
- EUA

Rectal prolapse





Management

- Conservative (not a good option usually)
- **Abdominal** approach (rectopexy + resection)

  Laparotomy

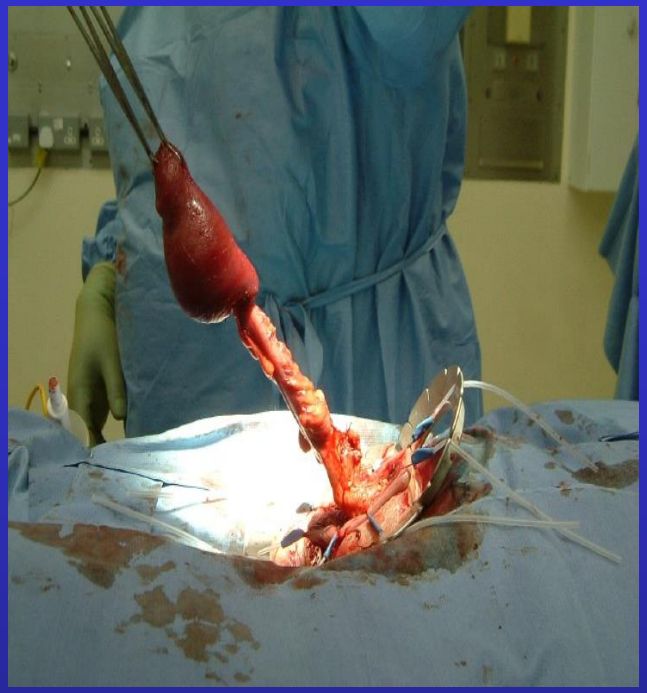
  Constipation

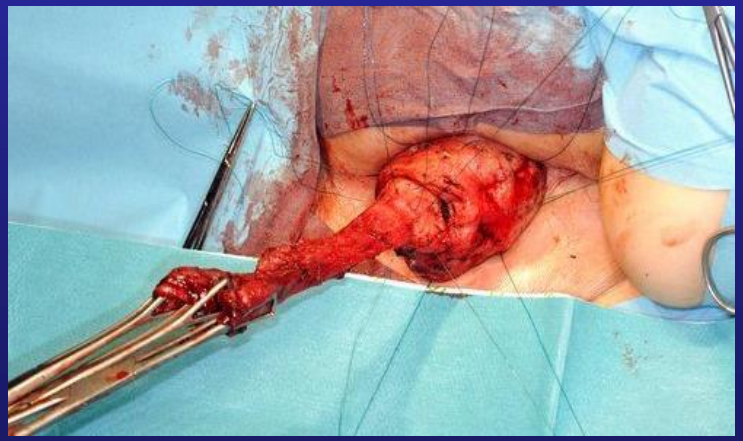
  Low recurrence

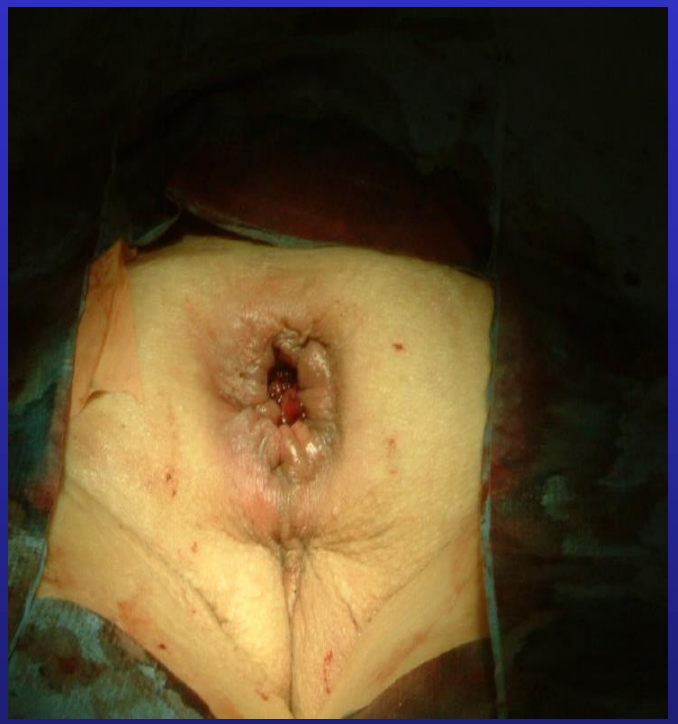
  Laparoscopic rectopexy
- **Perineal** approach (Delormes / Altmeier)

  Reduced morbidity

  Increased recurrence rate (30 %)







Faecal Incontinence

- Distressing & socially incapacitating condition
- True prevalence remains unknown
  - **3 – 8%** of the population
  - increasing in the elderly

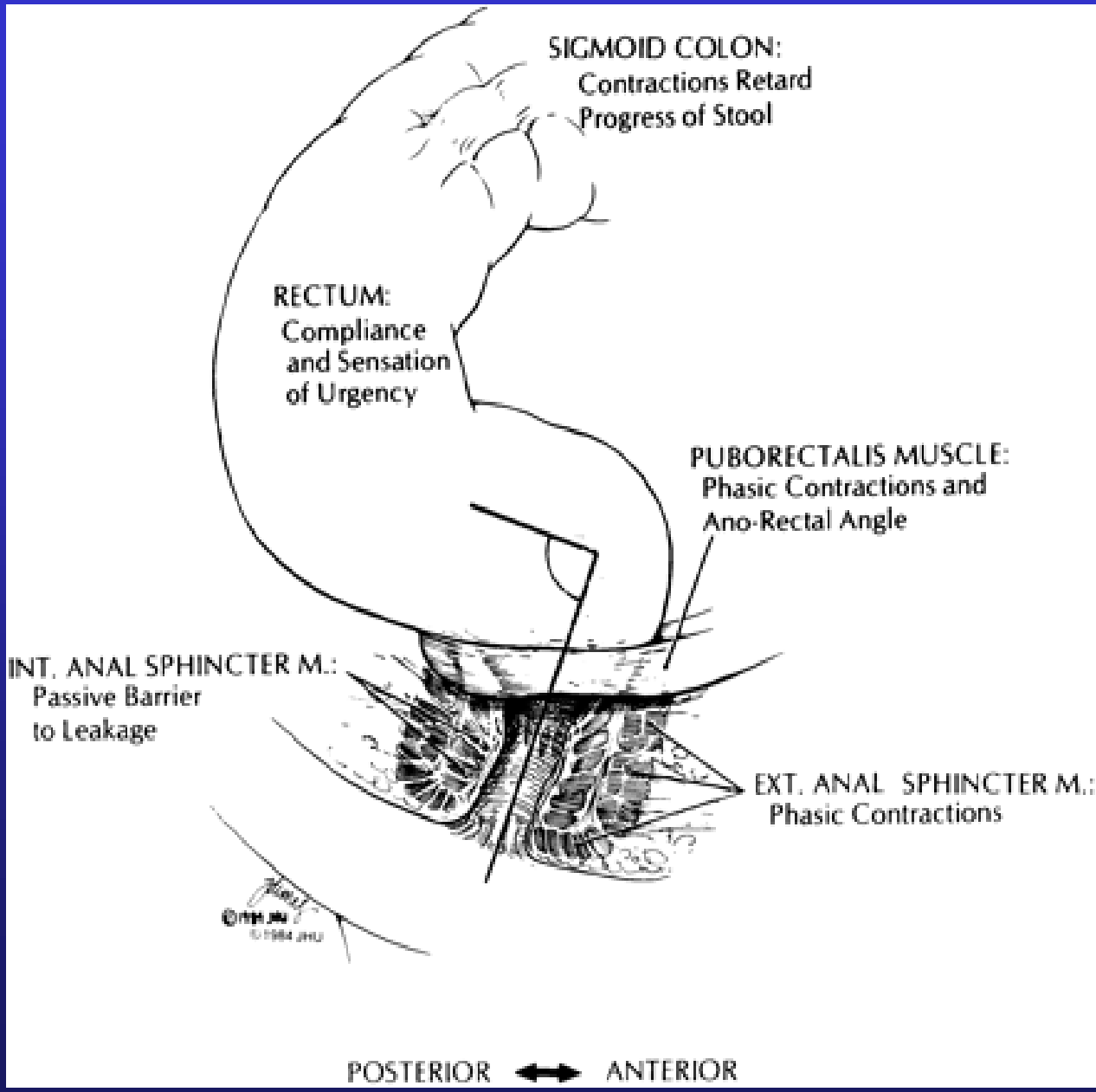
"Continence mechanisms"

Resting tone:

55% IAS

30% EAS

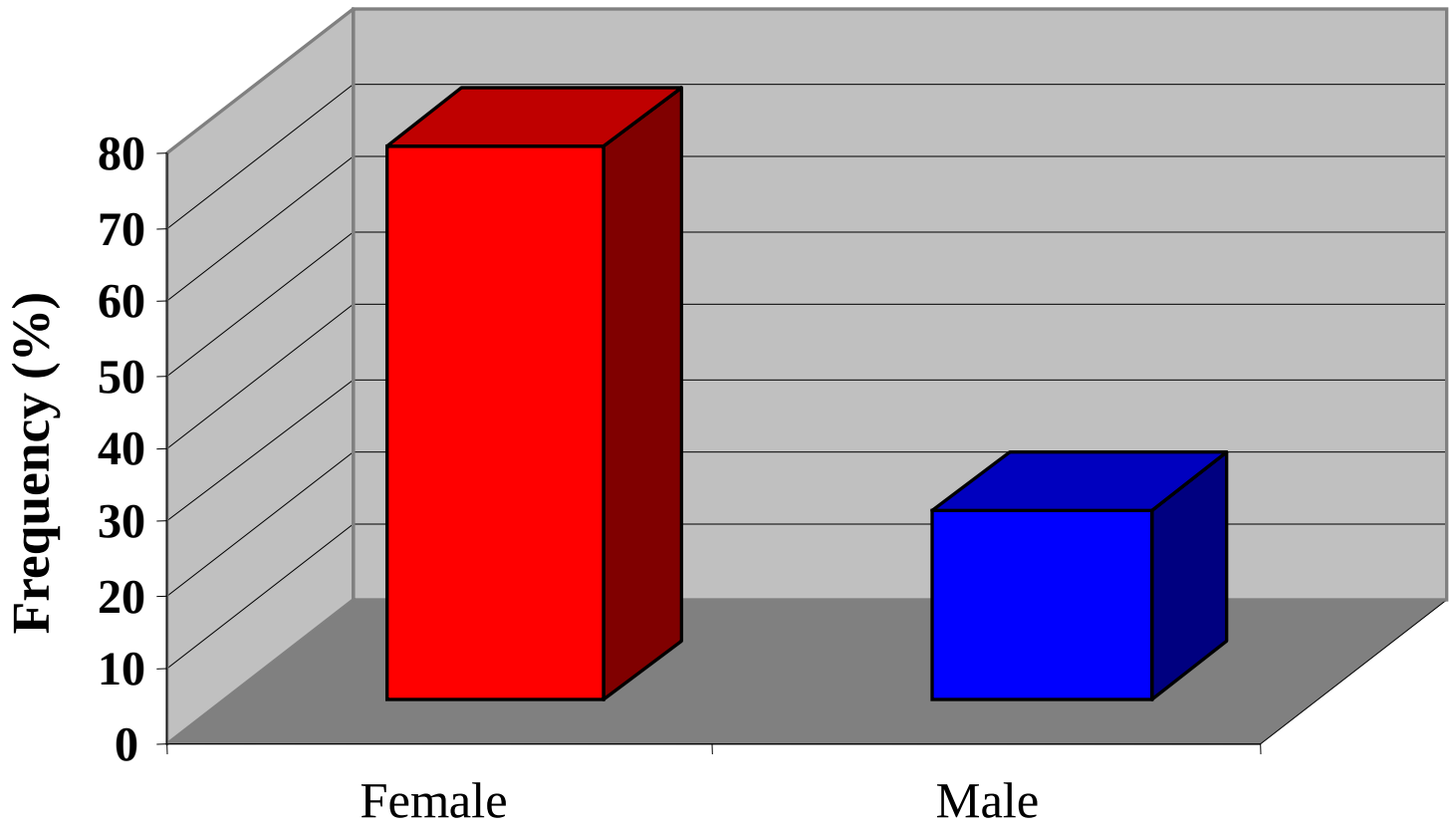
15% haemorrhoidal plexuses



Faecal Incontinence:

Referral pattern

- **n = 629**
- **Ratio F:M = 3:1**



FI: Symptoms

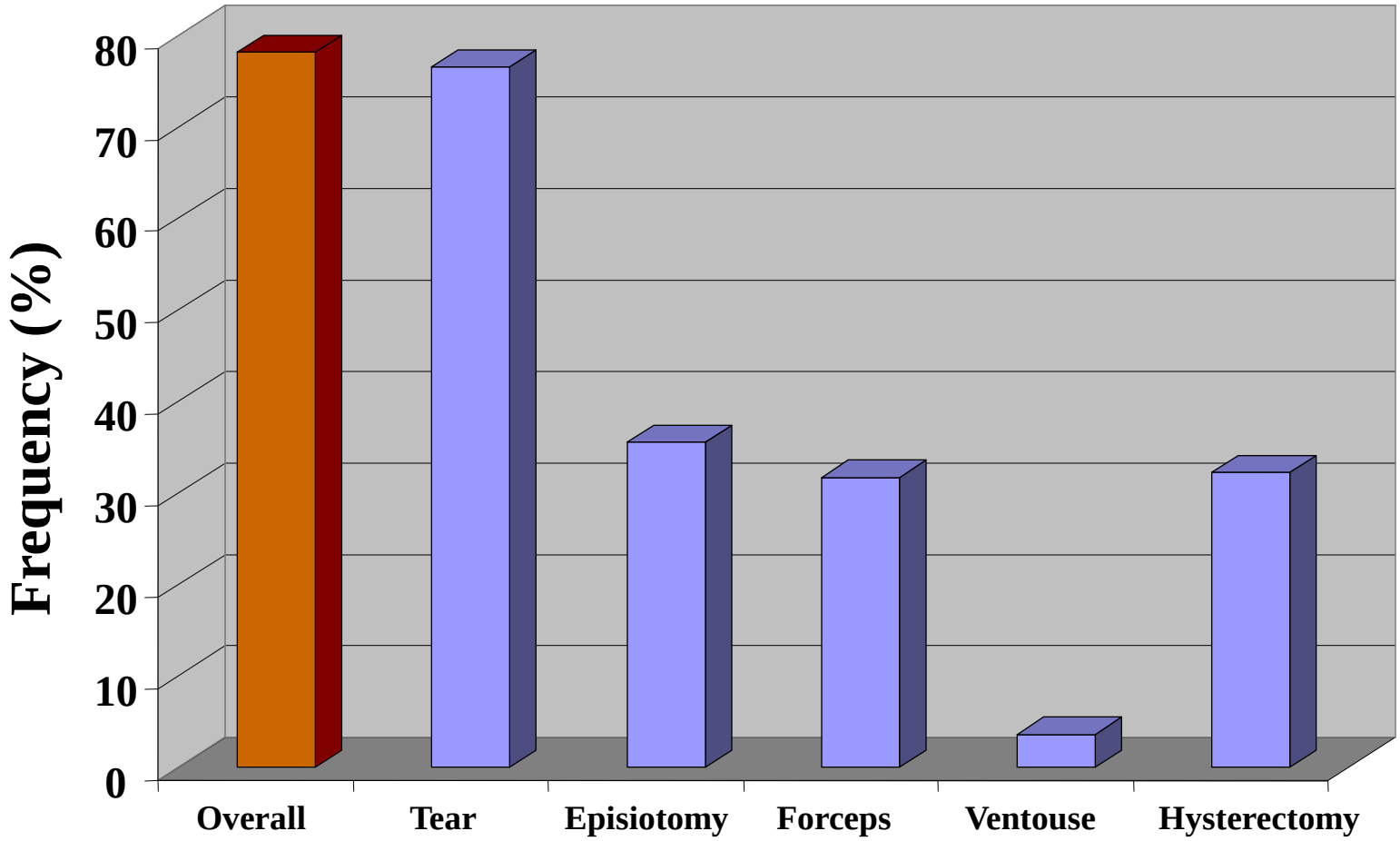
- **Urge**
  - Incontinence occurring with the patient's awareness, against their will because of lack of voluntary control
  - "two-minute warning"
- **Passive**
  - Without the patient's knowledge
- **Post-defaecation leakage**

FI: aetiology

- Trauma
  - **Obstetric injury**
  - **Surgery**
  - Accidental
- Colorectal disease
  - Rectal prolapse
  - IBD
  - Tumours
- Neurological — Cerebral/spinal/peripheral
- Congenital — Spina bifida
- Miscellaneous — Behavioural, impaction

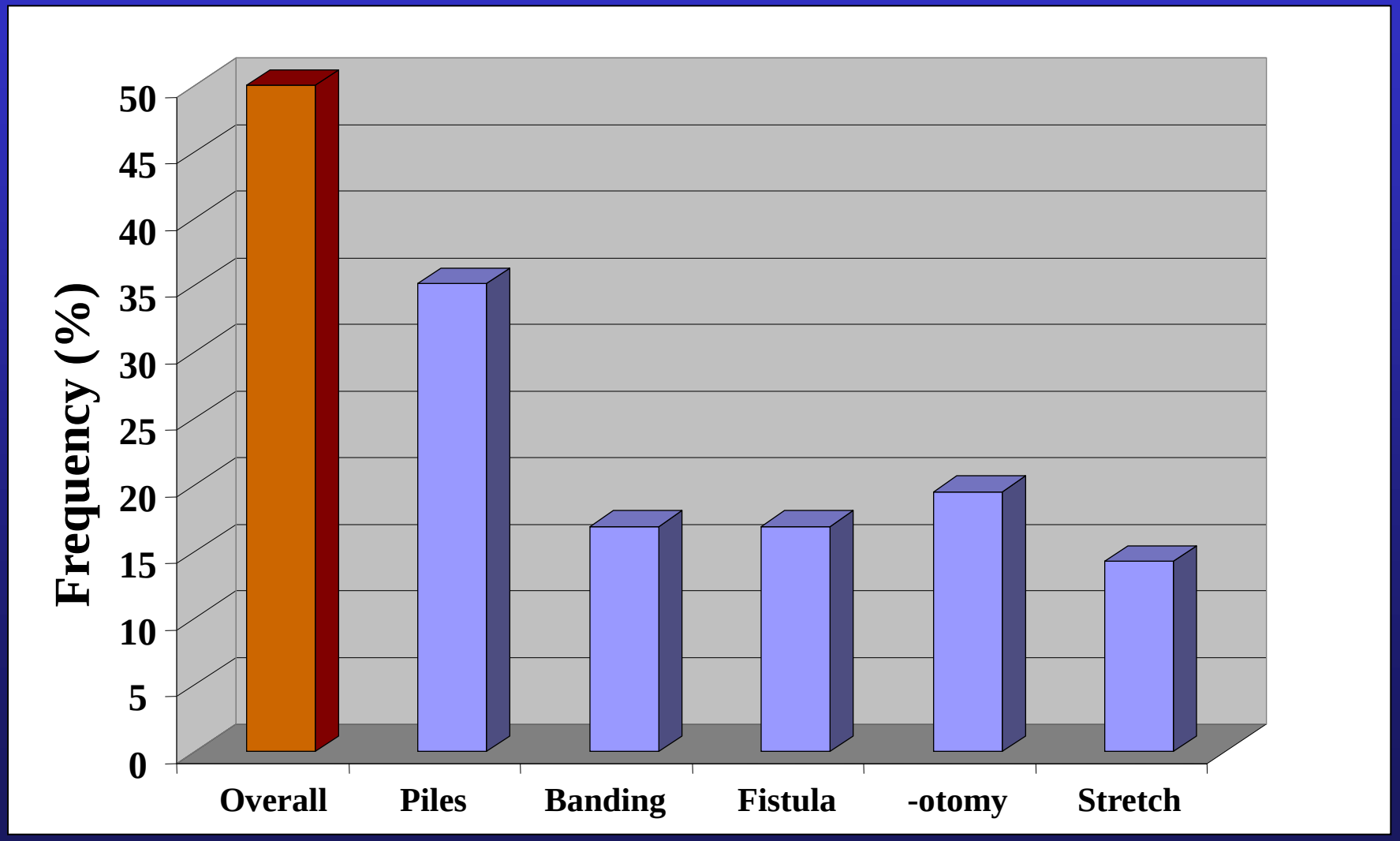
Obstetric Factors

- n = 439



Anal Surgery (Males)

- n = 154



Treatment

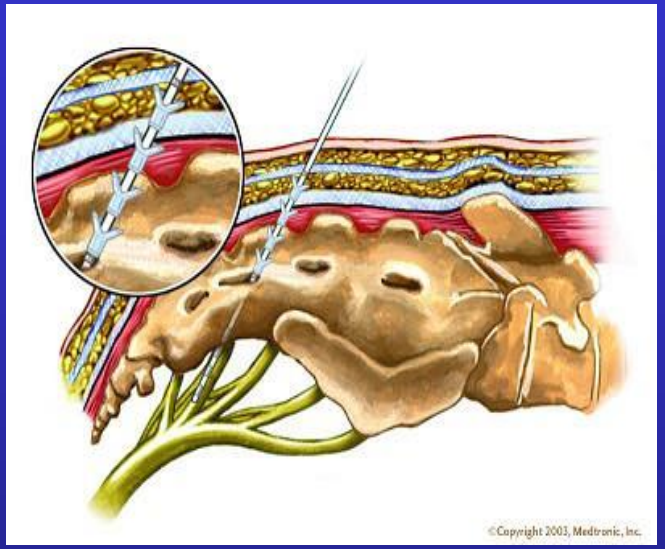
- Exclude serious pathology
- Multimodal investigation if severe
  - U/S
  - Pressure testing
  - Evacuation Proctography

Treatment

- Avoid caffeine/spicy foods
- Imodium / Codeine
- Pads
- Anal plug (Peristeen)
- Biofeedback
- Surgical repair
- Artificial sphincter
- Stoma
- SNS/PNS

Sacral Nerve Stimulation

- Matzel in 1995 for FI. Stimulation of S3
- "neuromodulation" effect on ascending pathways, local autonomic system
  - Locally (sphincter pressures, rectal sensation)
  - Distant (gut motility, sensory cortex)
- 2 stage procedure
  - Trial period 3 weeks
  - Permanent implant



Indications

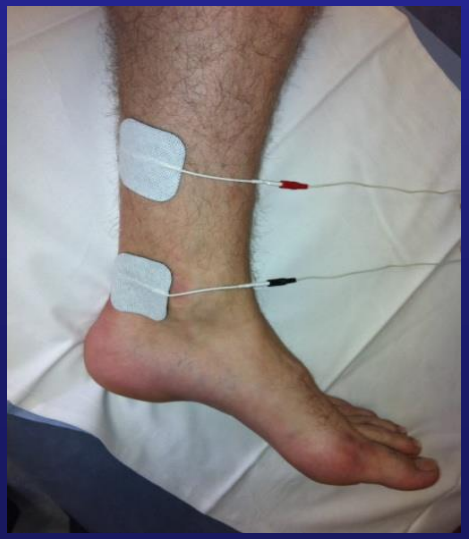
- Faecal Incontinence
  - NICE approved 2004
  - 50% virtually continent, 30% of the rest will have a sig reduction in FI
  - No trial yet comparing to sphincter repair

SNS: Problems

- Expensive
  - Test box £200, Lead £2000, Battery £8000
- Post operative problems
  - Infection, nerve damage, battery lasts 6-8 years
- Loss of efficacy over time
  - Requires regular “re-programming”
- Pregnancy
  - Must be switched off during pregnancy
  - c-section to avoid lead displacement

Posterior Tibial Nerve Stimulation

- 2003 used for FI
- Remote neuromodulation of sacral plexus via the posterior tibial nerve
- Achieved by
  - Percutaneous
  - transcutaneous



PTNS- Indications

- Just FI, so far
- 11 studies, most demonstrated sig improvement
- Given as a 1-2 month course
- Percutaneous more efficacious than transcutaneous
- Therapeutic effect that can persist for several months after treatment
- Large multicenter study under way comparing PTNS with SNS

PTNS- Problems

- Cheap equipment costs
  - Needles £200
  - Pads £3
  - Stimulator boxes £80
- Labour intensive
  - Percutaneous PTNS requires practitioner support
  - But transcutaneous can be self-administered

The past 45 mins

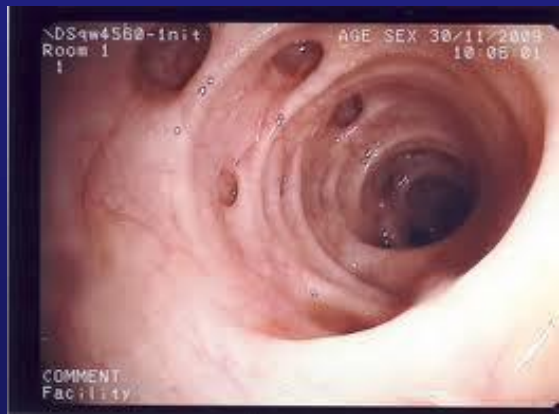
- Proctology
- Demonstrated array of pathologies seen
- Highlighted areas where primary care can take a bigger role


Questions?

Diverticular Disease

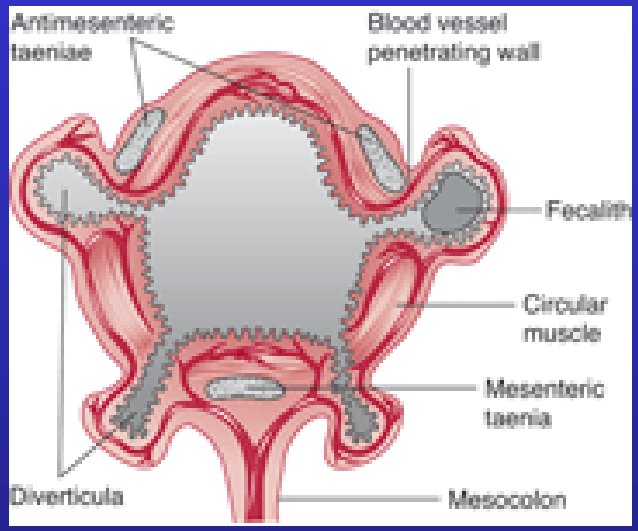
Lee Dvorkin

- Right sided in Orient
- Left sided in West
- 75% of over 70 yrs
- Only 10-30% cause symptoms
- Dilemma comes as to when, how and who to operate on



Don’t assume change in bowel habit is diverticular disease

Aetiology



- Poor dietary fibre
- Hyperelasytosis and altered collagen structure with ageing

- Narrow sigmoid leads to high intraluminal pressures with mucosa protrusion at anatomical weak points

Complications

- Pain
- Diverticultis
- Fistula
- Bleeding
- Stricture
- Perforation

Presentation

Elective

- Lower abdo pain
- Altered bowel habit
- distension

Treatment

- Exclude cancer
- Reassure
- Increase fibre
- Surgery: beware concurrent IBS

Emergency

Acute diverticulitis

- LIF pain
- Change in bowel habit
- Peritonism
- Sepsis

Fistula

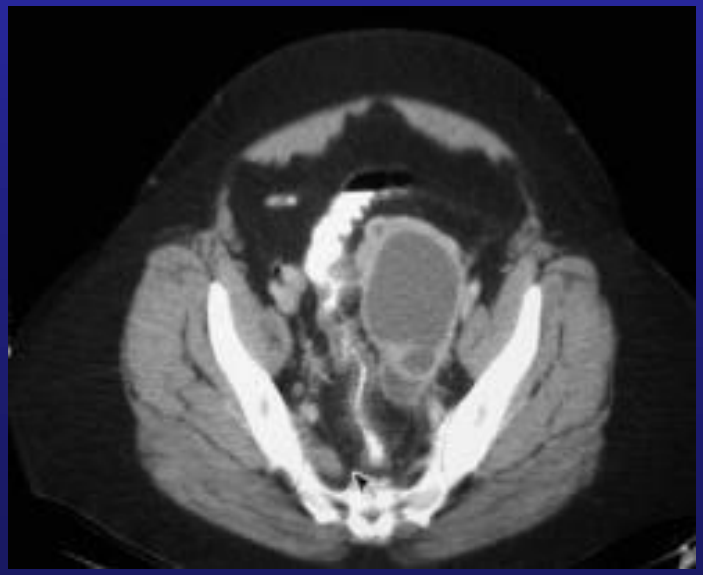
- Any adjacent organ
- Colovesical & colovaginal most common

- ddx: Crohn’s, cancer

Emergency

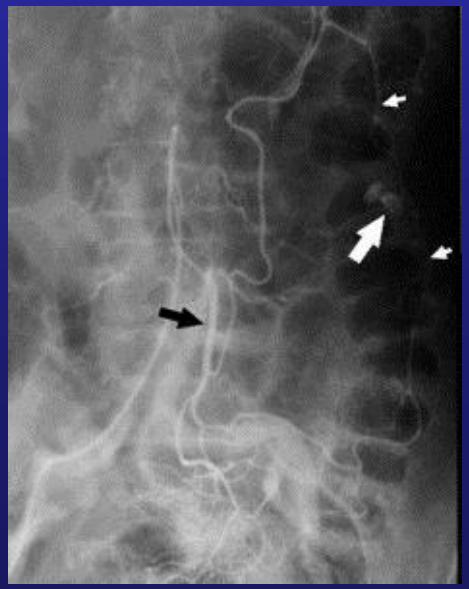
Abscess

- Lower abdo pain/mass
- Systemic sepsis



Bleeding

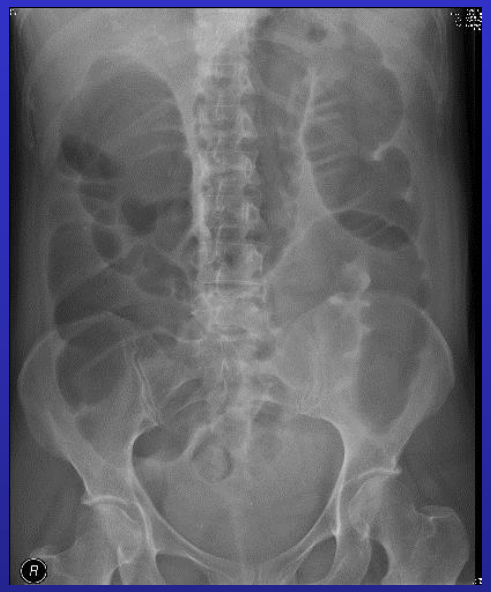
- Painless & profuse
- Colour depends on site and speed

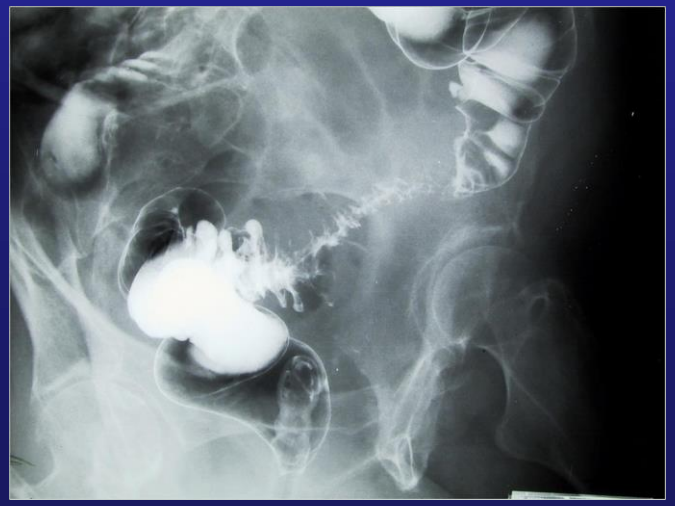


Emergency

Obstruction

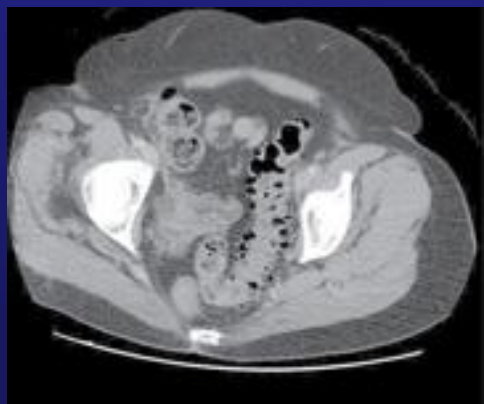
- Fibrosis stricture from longstanding sigmoid diverticular disease
- Presents exactly as LBO due to cancer
- Often cant tell until after resection





Investigation

- Depends on clinical presentation
- Most managed as outpatient with colonoscopy to confirm diagnosis
- Inpatients have variety of investigations
  - CT
  - Contrast enema
  - Angiogram



Management

Elective

- Recurrent persistent symptoms
- Development of a complication
- Evidence suggests that first attack often the worst and only a minority continue with problems
- Fistulae often too morbid to treat conservatively

Emergency

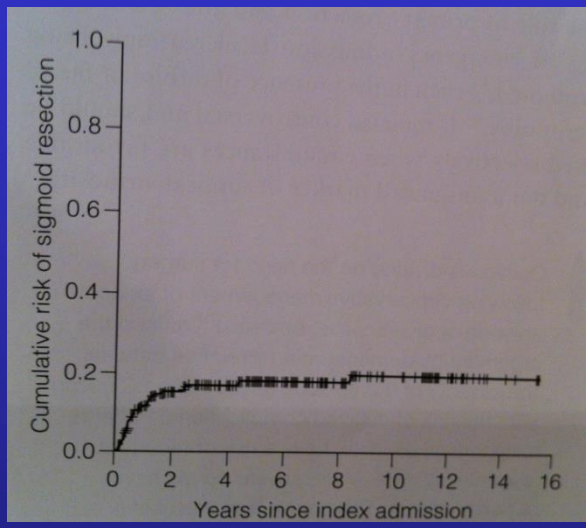
- Severe sepsis not controlled with antibiotics
- Generalised peritonitis that fails to respond to treatment
- Torrential bleeding

Surgical issues in acute setting..?

- When to operate?
  - ongoing clinical assessment
- When to resect bowel?
  - lavage??
- When to anastamose?
  - avoiding anastamosis not always the easy option

Subsequent elective surgery

- Limited evidence to inform practice
  - Ambrosetti *et al*...
    - 14% recurrence after ‘mild’ first attack
    - 39% after a ‘severe’ attack
    - Higher chance recurrence in young



- 1 admission with severe attack in young
- 2 admissions
- Suspicion of malignancy

Summary

- Sigmoid diverticular disease is common
- Admission is uncommon
- CT best investigation
- Urgent surgery needed in <20%
- Laparoscopic lavage should be considered as should primary anastamosis
- Offer elective surgery to young symptomatic patients