Surgery

Haemorrhoids

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Haemorrhoids

- Definition
- History
- Anatomy
- Physiology
- Patho-physiology
- Clinical features
- Treatment
Definition

- To the layman “Anything around the tailend”
  circumferential longitudinal muscle
- Piles - Pila Latin for ball
- Haemorrhoid - Greek Haema for blood, Rhoos to flow

Polypoid protrusion of mucosa and or skin through the ano-rectal ring

50% People at 50 years of age
Internal and External Haemorrhoids

**Internal**
- From the cushions
- Covered in mucosa
- Bleed
- Inject, Band, Remove

**External**
- From below the dentate line
- Covered in skin
- Remove
History

- 2250 BC, treatment of Haemorrhoids in Babylon
- 400 BC, Hippocrates (460-337 BC) book ‘On Haemorrhoids’
- 150, Galen (131-201), bleeding good for patient
- 1360, John of Arderne (1306-1390) used term piles
- 1869, injection treatment by Morgan (Dublin)
- 1937, Open Haemorrhoidectomy, Milligan (UK) Morgan
- 1952, Ferguson in the States describes closed hemorrhoidectomy
- 1963, Rubber banding introduced by Barron (Detroit)
- 1998, Longo introduces the stapling procedure
You will recognize the hemorrhoids without difficulty, for they project on the inside of the gut like dark-colored grapes, and when the anus is forced out they spurt blood.
Having on the preceding day first purged the man with medicine, on the day of the operation apply the cautery. Having laid him on his back, and placed a pillow below the breech, force out the anus as much as possible with the fingers, and make the irons red-hot, and burn the pile until it be dried up, and so as that no part may be left behind. And burn so as to leave none of the hemorrhoids unburnt, for you should burn them all up.

When the cautery is applied the patient's head and hands should be held so that he may not stir, but he himself should cry out, for this will make the rectum project the more.
Anatomy of the anal canal

- Starts; at the end of the rectum
- Haemmoroidal Cushions; Terminal branches of the rectal arteries
- Sphincters; Two internal (circular smooth muscle, involuntary), external (skeletal muscle, three parts, voluntary)
- Dentate line; where the columnar lining changes to squamous, the squamous lining is very, very sensitive (don’t inject haemmoroids here)
Sphincters

- Levator
- Ischio-Rectal Fossa
- External Sphincter
- Internal Sphincter
Cushions

- Continence
- Internal haemorrhoids arise from these
Physiology - Sampling

Recto-anal inhibitory reflex

- Internal relaxes
- External squeezes
- Differentiate flatus from faeces
Physiology - Continence

- Nature of stool
- Rate of delivery
- Rectal compliance
- Rectal volume
- Sampling
- Sphincters
- Angle
Haemorrhoids consist of;

- Thick submucosa often oedematous
- Blood vessels often thrombosed
- Smooth muscle
- Connective tissue including Elastin
Unknown;

- Poor return of venous blood; straining, portal venous hypertension
- Sphincter dysfunction - trauma to cushions - swelling
- Damaged connective tissues - prolapse

No evidence that rectal cancer causes haemorrhoids - but
Haemorrhoids - The four degrees

1. Never prolapses, may bleed
2. Prolapses and reduces, bleeds
3. Prolapses (has to be put back), minor soiling
4. Always prolapsed
Haemorrhoids - Presentation

- Discomfort Pain; not usual to cause severely painful defecation
- Itch - Pruritis Ani
- Prolapse
- Incontinence, minor soiling
- Bleeding; typically bright red following defecation, comes and goes
Haemorrhoids - Complications

- Acute prolapse and thrombosis
- Ulceration
Haemorrhoids - Examination

- Position
- Tags and external haemorrhoids
- Fissures (pain)
- Proctoscopy to check cushions

Examination of residual bowel?
Colonoscopy and / or Barium enema?

- Always
- Bleeding is not the typical bright red post defecation
- Associated change in bowel habit
- Age over 50
- Bleeding has not ceased after treatment of haemorrhoids
Differential Diagnosis

Mass

- Rectal prolapse
- Rectal tumour
- Perianal haematomata
- Warts
- Fibro-epitheleal polyp

Pain

Bleeding
## Differential Diagnosis - Pain and Bleeding

### Pain
- Acute anal fissure
- Perianal haematoma
- Perianal dermatitis
- Proctalgia Fugax
- Perianal infections
- Fistula-in-ano
- Proctitis

### Bleeding
- Solitary Rectal Ulcer
- Proctitis
- Rectal tumour
- Coagulation defects
- Trauma
- Young - Proctitis
- Aged - Cancer
Treatment - Acute Thrombosis

- Differentiate from rectal prolapse
- Bed rest
- Analgesia
- Ice packs
- Stool softeners
- Debridement haemorrhoidectomy
Treatment - Chronic Symptoms

- Rule out proctitis / rectal cancer
- Diet - Hi fibre
- Creams of little use
- Surgery tailored to patient
Treatment - Chronic Symptoms - Surgery

Less aggressive
- Injection Sclerotherapy
- Rubber Banding

Little prolapse
Minor External

Haemorrhoidectomy
- Milligan-Morgan
- Ferguson
- Longo (stapling)

Major prolapse
Major External
Injection Sclerotherapy - What

Phenol in almond oil

- Phenol; sclerosant
- Almond oil; prevents diffusion
Injection Sclerotherapy - Where

- 3 ml
- Above dentate line
- Bleb don’t blanch
- Avoid anterior
Injection Sclerotherapy - Complications

- Injection too superficial - Bleeding
- Injection too deep - Sepsis, Impotence
- Failure to shrink
- Recurrence

Not as durable as banding, but less painful

Rubber Banding

Introduced 1963 by Barron in Detroit

Placed 1.5 cm above dentate line
Rubber banding - Results

- More effective than injections
- More painful than injections
- Reasonable durability

<table>
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<tr>
<th>Time</th>
<th>Symptom free</th>
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<tr>
<td>5 y</td>
<td>70%</td>
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<tr>
<td>10 y</td>
<td>50%</td>
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Milligan-Morgan Haemorrhoidectomy

Indications

- Large external haemorrhoids accompanied by
  - Pruritis
  - Pain
  - Swelling
- Significant prolapse
- Significant external component
Reducing pain post haemorrhoidectomy

- Lactulose taken for 4 days beforehand
- Post operative metronidazole, 400 mg PO TDS for seven days
- Avoid stitches / Big stitches
- Field block with long acting anaesthetic
- No roll in anus or use alginate roll

Pain minimisation is key to day case surgery
Milligan-Morgan Haemorrhoidectomy - Procedure

If it looks like a Clover
Your trouble is over
If it looks like a Dahlia
It is sure to be a failure
Milligan-Morgan Haemorrhoidectomy - Post op care

- Pack out
- Analgesia (Distalgesic 2 QDS PO)
- Avoid over aggressive intra-op fluids (urinary retention)
- Lactulose 10 ml TDS
- Sitz baths
- Metronidazole 400 mg TDS PO, x 7 days
- Expect small amount of blood from wounds
- Report, urinary retention, failure to open bowels by third day
- Warn about heavy bleeding D10-D14; urgent attention
Milligan-Morgan Haemorrhoidectomy - Complications

Immediate

- Immediate
- Medium
- Long

Immediate

- Pain
- Bleeding (4%)
- Urinary retention (50% to 0.5%)
Milligan-Morgan Haemorrhoidectomy - Complications

**Medium**
- Secondary Haemorrhage at D10-D14, (1%)
- Sepsis
- Incontinence

**Long**
- Anal stenosis (2%)
- Incontinence (0.4%)
Milligan-Morgan Haemorrhoidectomy - Results

- More painful than injections, banding
- More durable than injections, banding
- Quicker healing compared to Ferguson

Longo procedure - Stapling

- First reported in 1998
- Slight similarity to Whitehead and Delorme operations
- Less pain and quicker return to work


- Long term results not as good, however

Thanks

Look for the pdf download (287 K), and online expanded lecture at http://eilise.homelinux.org

Questions please