Syllabus

Hemorrhoids, Fissures & Other Anorectal Disorders

Anatomy

3 cushions of fibro-vascular tissue (Right Anterior, Right Posterior, and Left Lateral) supported by muscular fibers from the internal sphincter

Functions: continence (15-20% resting anal closure pressure) and possible protective function

Internal hemorrhoids are covered by columnar epithelium (mucosa - insensate)

External hemorrhoids are covered by squamous epithelium (anoderm - very sensitive)

Dentate Line (or "Z-line"): junction of anoderm and mucosa

External tissue does NOT mean tissue outside of the anal verge, but rather below the dentate line. There are "external" hemorrhoids inside the anal verge!

Pathophysiology of Hemorrhoids

Supporting muscular fibers become fibrotic with age, further break down with constipation, obesity, pregnancy, sedentary lifestyle, prolonged time on toilet, etc.

Hemorrhoids prolapse into the anal canal when defecating

Grades of Hemorrhoids: I-IV

Anoscopic appearance not always indicative of symptoms

Itching - primarily from deposited mucus from prolapsing hemorrhoids, progresses to topical yeast skin infection, etc.

Bleeding - friability of tissue and vessels

Swelling of external extensions of internal disease ("mixed" or "compound" hemorrhoids)

Prolapse

Leakage - prolapsing tissues impede proper anal closure

Treatment of Symptoms

Itching/Rash

- NO soap or drying agents
Use barriers or topical antifungals for yeast, cleanser for mucus (Balneol™)
- Treat hemorrhoids

Bleeding, Swelling, Prolapse

- Treat hemorrhoids

External Symptoms

- Treat internal hemorrhoids (90% success rate)

Associated Pain

- Find and treat cause of pain
- Treat hemorrhoids

Leakage

- If good sphincter function, hemorrhoid treatment often lessens leakage
- Patients with leakage often need >3 areas banded

Pain - internal hemorrhoids don't hurt!
Perianal pain most often caused by a fissure.

Other causes include:
- Infection (abscesses, fistulae, etc.)
- Spasm (fissure, thrombosis, pelvic floor dysfunction, proctalgia fugax, etc.)

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The prolapse is the issue - no prolapse, no hemorrhoidal symptoms!

Differential Dx's

Fissures: See below
Abscess: I&D (refer to surgery)
Fistulae: r/o Crohn's, CA, then refer to surgery (seton, plugs, fibrin glue, fistulotomy)
Spasm: Nitroglycerin ointment* 0.125% - "pea-sized" amount PR TID until finished with banding
Condyloma: STD eval, Bx, excision/cautery/podofilox
CA: Colonoscopy, Bx, appropriate referral

Spasm & fissure patients: treat associated hemorrhoid disease

Treatment of Fissures

- Dietary and behavioral recommendations as per hemorrhoid disease
- NTG* 0.125% PR TID - QID x 3 months. Must be placed inside anal verge. Apply to area of fissure on the anoderm
- If no improvement and no headaches, NTG* 0.2% TID or QID
- If headaches or pt uses ED medications, Diltiazem (2%)* or Nifedipine (0.5%)* QID
- If no better, Botox* (up to 40 units total), keep on NTG*
- If no better, surgery. Lateral Internal Sphincterotomy(LIS): 2-4% w/ post-op incontinence
- If symptoms are severe, do NOT start treating hemorrhoids concurrently. May also use short course of steriod-containing suppository to aid placement of NTG*

Anal Spasm

"Tight" on exam
"Long" anal canal
"Double Sphincter Sign"
"Incomplete Evacuation" symptoms

Anal Fissure

80-90% in posterior midline, 10-20% in anterior midline (few with both)

Cause: hard or large BMs, poor vascularity of posterior midline

Multiple fissures NOT in the midline: r/o Crohn's, TB, STD's etc.

Thrombosed External Hemorrhoids

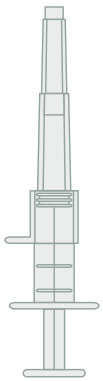
I&D if up to 48-72 hours old. Also give NTG* and topical anesthetic

If >48 hours old - treat conservatively (NTG*, topical anesthetic, soaks)

If ulcer present, use topical anesthetic and you can enucleate clot by manual decompression without incisions

Rubber Band Ligation using the CRH O'Regan System®

- Causes sloughing of the proximal portion of the hemorrhoid
- Fibrosis (scarring) impedes flow into hemorrhoidal cushions
- Scarring fixes (pexes) the prolapsing mucosa back down to the muscular layer
- Banding 1 column of hemorrhoids per session minimizes complications (1% vs. 6% +)
- Banding intervals of 2 weeks or more
- 10-15% of patients do not need all 3 columns banded
- 15-20% will need more than 3 bandings (average 3.1 treatments per patient)
- Using NTG* in appropriate patients will minimize post-banding issues
- Patients with leakage often need >3 areas banded



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* "off-label" usage. Reference: Guttenplan, Mitchel. *Anorectal Topicals – Whitepaper*. January 2015