Anorectal Disease

Cincinnati Colon and Rectal Surgeons
May 23, 2012
Or: It’s my hemorrhoids, Doc

-- NOT!
NOT NEARLY AS POPULAR AS ITS PREDECESSOR, MR POTATO BUTT DEBUTED AND DIED SHORTLY THEREAFTER.
In What Way Are Your Hemorrhoids Bothering You?

- Pain
- Bleeding
- Itching/burning
- Swelling
- Drainage
- Incontinence/leakage
Has anything you’ve done made it better?

- Hot soaks
- Ice
- Laxatives
- Creams
- Hygiene
- Sitting on a tennis ball
Inspection: Look First!

• Quality of the skin
• Skin color
• Contours
• Lumps/bumps
• Tears/ulcers
Examination of the Perineum

- External thrombosis
- Prolapse
- Abscess
- Sentinel Tag and Fissure
- Warts
- Cancers
- Pruritus
- Incontinence
Palpation

Explain what you’re going to do
Spread skin/evert anus first
Then… and only then… insert a finger

Gently!
Auscultation
24 y.o. anxious female

- Pain with bowel movements
- Blood on tissue
- I keep pushing the hemorrhoid up, and it just comes back down
- My hemorrhoids are blocking my bowels
- Stool is hard
Anal fissure: Etiology

- Trauma
  - Hard stool
  - Diarrhea
  - Chronic straining
- Hypertonic or spastic internal sphincter
- Increased intra-anal pressure
- Decreased blood flow anterior/posterior
- Ischemic ulcer
Management of Anal Fissure

- Fiber supplement
- Warm tub soaks
- Anal nitroglycerine (0.2%)
- Topical nifedipine
- Botox
- Lateral internal sphincterotomy
45 y.o. female

• Spent Saturday raking leaves, planting bulbs
• Sunday morning woke with painful anal swelling
• Prep H hasn’t helped.
Thrombosed External
Thrombosed External
Acute Thrombosis: Management

- Expectant
- Excision not incision
- Avoid mucocutaneous junction
- Warn of potential for non-healing wound or abscess
65 y.o. rectal bleeding

- 30 year history of protrusions with bowel movements
- Pushes the tissue back up each time
- Bleeding is painless
- Colonoscopy negative
Hemorrhoids

Types of hemorrhoids

- Origin below dentate line (external plexus)
- Origin above dentate line (internal plexus)
- Origin above and below dentate line (internal and external plexus)

- External hemorrhoid
- Internal hemorrhoid
- Mixed hemorrhoid
Classification of Hemorrhoids

- Location
  - Internal
    - Sliding vascular pad
  - External
    - blood clot beneath skin
  - Mixed

- Vascular
  - Bleed not prolapse

- Mucosal
  - Protrude and prolapse
Internal Hemorrhoids

- 1° Bleeding
- 2° Bleeding and prolapse – Spontaneous reduction
- 3° Bleeding and prolapse – manual reduction
- 4° Irreducible prolapse

*Must differentiate from Rectal Prolapse*
Examination on the commode may be crucial
<table>
<thead>
<tr>
<th>Degree</th>
<th>Hemorrhoids</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1°</td>
<td>Hemorrhoids</td>
<td>Bowel regimen, Sclerotherapy, IRC</td>
</tr>
<tr>
<td>2°</td>
<td>Hemorrhoids</td>
<td>Elastic ligation, Excision (especially in patients on anticoagulation)</td>
</tr>
<tr>
<td>3°</td>
<td>Hemorrhoids</td>
<td>Excision (traditional vs. new), Stapled hemorrhoidopexy</td>
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<tr>
<td>4°</td>
<td>Hemorrhoids</td>
<td>Urgent surgical excision</td>
</tr>
</tbody>
</table>
Surgical Management of Internal Hemorrhoids

Elastic ligation technique

Bands on inner drum
Elastic bands on inner drum
Outer drum
Hemorrhoid grasped by clamp and pulled through drums of instrument

Bands released
Ligated hemorrhoid
Elastic band
Inner drum retracts and releases bands onto base of hemorrhoid

Excision technique for mixed hemorrhoids

Hemorrhoid grasped and pulled down
External sphincter
External hemorrhoid dissected free; dissection carried cephalad to free internal portion

External sphincter
Deep suture ligation of vascular pedicle
Dead space closed with suture incorporating skin edges and muscle

Internal sphincter
Common Anorectal Disorders

INTERNAL HEMORRHOIDS

Management

Surgical Hemorrhoidectomy

- Grade IV
- Mixed internal and external
- Hemorrhoidal crisis
- Patient preference
- In conjunction with another procedure
Complications

• Bleeding
  – Acutely or delayed

• Infection
  – Rare: requires high index of suspicion
    • Can be lethal

• Incontinence
  – Detailed questioning regarding continence PREOP

• Stricture or ectropian
  – Increased risk with circumferential disease

• Urinary Retention
70 y.o. female

- Has had hemorrhoids for a long time
- They hang out all day, only go back up when she lies down
- Incontinence of stool
- Chronic soiling
- Wears pad
This is NOT a hemorrhoid
Rectal Prolapse

- Elderly (nulliparous) female
- Chronic constipation
- Straining to have bowel movement
- Pelvic floor abnormality
- Associated uro-gyn symptoms
- Patulous anus
# Rectal Prolapse

## Treatment

<table>
<thead>
<tr>
<th>Abdominal Repair</th>
<th>Perineal Repair</th>
</tr>
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<tbody>
<tr>
<td>• Rectal fixation</td>
<td>• Full thickness resection</td>
</tr>
<tr>
<td>• Sigmoid resection</td>
<td>• Mucosal resection with muscular reefing</td>
</tr>
<tr>
<td>• Proctectomy</td>
<td>• Anal encirclement</td>
</tr>
<tr>
<td>• Combination of rectal fixation and sigmoid resection</td>
<td></td>
</tr>
</tbody>
</table>
25 y.o. male

- Long history of difficulty having BM
- Recent trauma, on narcotics
- No BM for 3 days
- Strained at stool
- Brought to ED by girlfriend, who found him bleeding on floor of bathroom
This is not just the rectum:
Incarcerated Rectal Prolapse

- Surgical emergency
- Altemeier or perineal approach is procedure of choice
- Necrosis of the dentate line may require colostomy
45 y.o. male

- Cc: Doc, I’ve got this hemorrhoid that just keeps getting bigger.
- It’s been there about a month.
- I can’t push it back in.
This is not a hemorrhoid:
After wide local excision
Flap outlined, elevation begun
Flap sutured in place
50 y.o. female

• “It’s my hemorrhoids. I’ve been dealing with them a long time, and now they just hurt constantly.”
Anal neoplasms

- Mass
- Pain
- Bleeding
- Itching
- Discharge

- Up to 30% will be misdiagnosed as a benign anorectal condition
Anal margin v. anal canal

- Paget’s or Bowen’s
- Squamous cell carcinoma
- Involves skin around anus
- Often history of anal condylomata
- Treatment is wide local excision

- Cloacogenic carcinoma (squamous)
- Involves anal canal
- Treatment is Nigro protocol
- Radiation, chemo (5-FU + mitomycin-c)
68 y.o. female

- Complains of pain, discharge, decreased calibre of stool
- Gastroentrologist has identified a “scar” on the anus
- History of radiation and chemotherapy in 80’s. Received both external beam and brachytherapy.
Recurrent anal cancer
How it all began...
After treatment...
18 y.o. male c/o hemorrhoid

- Several day history of increasing pain
- Swelling on anus
- (Fever)
- (Urinary retention)
- (Difficulty initiating bowel movement)
This is not...
What to do next:

- Further work-up?
- CT pelvis?
- None!
- Treatment?
- Antibiotics?
- Incision and drainage!
Abscess: Classification

- Perianal (~40%)
- Ischiorectal (~20%)
- Intersphincteric (~3%)
- Supralevator (<2.5%)
48 y.o. female pain for 5 days

• Swelling “burst” day before presentation
• Long history of Crohn’s disease
• Previous bowel resection
• Multiple drainage procedures
• Currently on no therapy
Next step: EUA
Drainage procedure
Fistula-in-Ano

• History:
  – Abscess in past
  – Discharge/excoriation (65%)
  – Pain (34%)
  – Swelling (24%)
  – Bleeding (12%)
Fistula-in-Ano

• **Differential Diagnosis:**
  – Crohn’s Dz
  – HIV
  – TB
  – Lymphoma
  – Malignancy
  – Hydradenitis Suppurativa
  – Bartholin’s gland abscess
Fistula-in-Ano

• Physical exam:
  – Elevated granulation tissue with d/c
  – Palpable chord
  – Rectal exam:
    • Internal opening
    • Sphincter tone
  – Anoscopy/Colonoscopy
Treatment:

- Fistulotomy
- Seton placement
- Anal fistula plug
- Sliding flap closure
Fistula-in-Ano: Fistulotomy

- Complications:
  - Incontinence 3-7%
  - Delayed healing
  - Anal stenosis
  - Mucosal prolapse
Seton Placement
Endo-rectal flap
To Review:
## Anal Symptoms/Pathology

<table>
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<th>Symptoms</th>
<th>Pathology</th>
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<tr>
<td>1. Pain and bleeding after bowel movement</td>
<td>Ulcer/Fissure</td>
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<tr>
<td>2. Forceful straining to have bowel movement</td>
<td>Pelvic floor Abnormality</td>
</tr>
<tr>
<td>3. Blood mixed with stool</td>
<td>Neoplasm/Inflammatory bowel disease</td>
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<tr>
<td>4. Drainage of pus during or after bowel movement</td>
<td>Abscess/fistula</td>
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Anal Symptoms/Pathology

**Symptoms**

5. Constant moisture
6. Mucous drainage and incontinence
7. Constant anal pain
8. +/- retention, fever

**Pathology**

Condyloma Accuminata
Rectal prolapse
Abscess
Open Invitation

- Office hours:
- University Pointe Wednesday morning
- Christ Hospital MOB Thursday 2-5
- University Pointe Friday 1-5.
- See gross stuff!
- Do procedures!
- Have fun!
Hemorrhoids
Prevalence

- 10 million people complain of hemorrhoids yearly
- Prevalence rate of 4.4%
- Peak incidence - Age 45 to 65 years
- Rare before 20 years or after 70 years
- 60% of hospitalized patients are men
Symptoms

- Bright red rectal bleeding
- Protrusion / prolapse
- Pain / discomfort
- Mucous drainage / soiling
Acute Thrombosis: Indications for Surgery

1. Inability to tolerate pain
2. Erosion of blood clot
3. Circumferential thrombosis and necrosis
4. Never as a primary procedure in the chronic state
Complications

• **Bleeding**
  – Acutely or delayed

• **Infection**
  – Rare: requires high index of suspicion
    • Can be lethal

• **Incontinence**
  – Detailed questioning regarding continence PREOP

• **Stricture or ectropian**
  – Increased risk with circumferential disease

• **Urinary Retention**
ANAL FISSURES
Anal Fissure

• History
  – Severe pain with defecation
  – Bleeding

• Exam
  – Sentinel tag
  – Eversion of the anal canal is all that is required to make the diagnosis
    • DON’T PROD AND PUSH
Classic anal fissure composed of fissure, sentinel edematous skin tag, and hypertrophied anal papilla.

Sentinel skin tag (shows fissure on inspection) may be confused with hemorrhoid.

Fissure predilection for midline locus may be related to poor support by external sphincter in these areas.

Fissures may be superficial or deep chronic ulcers, which expose internal sphincter.
**Lateral Internal Sphincterotomy**

**Closed technique**
- Blade inserted in intersphincteric groove and passed cephalad in intersphincteric plane to level of dentate line.
- Blade then moved medially, dividing inferior 1/3 to 2/3 of internal sphincter.
- Internal sphincter divided; external sphincter, anoderm, and longitudinal muscle remain intact.

**Open technique**
- Skin incision made external to anal verge.
- Hypertrophied band of internal sphincter freed and elevated into incision.
- Internal sphincter divided; wound usually left open for drainage.
Risks of Sphincterotomy

- Recurrence/persistence of fissure (2-10%)
- Incontinence to flatus (10-40%)
- Seepage/soiling, chronic irritation (up to 10%)
- Abscess
Abscess/Fistula
Abscess/Fistula

- Incidence: 8 per 100,000 – population based
- Male:Female – 3:1 to 2:1
- Seasonal incidence? Spring and summer
- Majority in 4th or 5th decade of life but range from 2 months to 8th decade
Abscess: Pathogenesis

-Parks, Br Jrnl Surg 1976
Presentation

- Pain: Exacerbated by sitting, BM’s
- Fever/Malaise
- Nonspecific symptoms if intersphincteric or supralevator
- Digital exam difficult due to pain
Treatment: Urgent I&D

- **Local vs general anesthesia**
- **Technique**
  - Where:
    - Transrectal vs percutaneous
    - Zone of greatest fluctuance
    - As near anus as possible
Surgical Management of Anorectal Abscess

Perianal abscess
Cruciate incision made as close to anus as possible

Intersphincteric abscess
Lesion unroofed, creating internal sphincterotomy

Lesion drained
Points of incision excised; wound left open to drain

Wound left open for drainage
Ischiorectal abscess

Ischiorectal abscess may be palpated above anorectal ring, although located inferiorly

Abscess incised and loculations broken down

Mushroom catheter inserted to insure drainage
Fistula-in-Ano

- a. Intersphincteric
- b. Transsphincteric
- c. Suprasphincteric
- d. Extrasphincteric

-Parks, Br Jnl Surg 1976
Fistula-in-Ano: Intersphincteric
Fistula-in-Ano: Transphincteric
Fistula-in-Ano: Extrasphincteric
Goodsall’s Rule
Goodsall’s Rule: Not So Good?

- Posterior opening: 90% followed rule
- Anterior opening: 49% followed rule
  - 71% tracked to anterior midline
  - 39% of men unpredictable course
  - 10% of women unpredictable course

-Cirocco. Dis Colon Rectum 1992
Fistula-in-Ano: Diagnosis
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Fistula-in-Ano: Diagnosis
Draining Seton
Rectovaginal Fistula

- High fistula - Diverticulitis
- Mid fistula – Crohn’s Disease, radiation
- Low fistula – cryptoglandular, obstetric
Hidradenitis Suppurativa

• Prevalence
  seborrheic skin type
  obesity
  heavy perspiration
  cystic acne in face, neck, axillae, groin

• Treatment
  incision, drainage, unroofing
  excision of chronic disease
  rare need for stoma
Pathophysiology of hidradenitis suppurativa.
Miscellaneous Conditions
“...and don’t forget, abscess makes the heart grow fonder.”

-Groucho Marx