UNDERSTANDING THE ANUS: DISEASE AND TREATMENT

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Anorectal Disorders

- Hemorrhoids
- Fissure-in-Ano
- Anorectal Abscess
- Pilonidal Disease
- Pruritus Ani
- Anal Warts
- Anal Cancer
- Anal Incontinence
Hemorrhoids

- Human race for centuries plagued with hemorrhoids

- Hippocrates in 400 B.C. wrote a treatise of the treatment

- Middle Ages, hot iron rod and a prayer

- Skepticism with operative excision all along
WHAT ARE HEMORRHOIDS?

• Specialized highly vascular “cushions”
• Present in everyone
• 3 constant anatomic positions: left lateral, right anterolateral and right posterolateral

• True definition of a hemorrhoid:
  • Dilation and sliding down of the anal canal lining
  • Associated with symptoms
  • Enlargement without symptoms is not by definition a hemorrhoid
Internal:
Dilation of submucosal vessels, above the dentate line

External:
Vessels below the dentate line – painful when engorged
PREVALENCE

• 10 million people in US, rate of 4.4%
• Age of distribution 45 – 65 years
• Diagnosis and differential of “True” hemorrhoids, requires proper use of an anoscope
• Diagnosis seen in good HPI
Pathogenesis

• Implications in causation include hereditary, erect posture, absence of valves, and obstruction of venous return due to increase of intra-abdominal pressure.

• Constipation and diarrhea, risk factor.
Classification

- External hemorrhoids
- Internal hemorrhoids
  - First degree, second, third and fourth
- Mixed hemorrhoids
Non-operative Treatment

- Diet modifications – high fiber
- Bulk-forming agents
- Ideal for first and second degree
<table>
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<tr>
<th>Population</th>
<th>Adequate Intake Level (grams per day)</th>
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<tbody>
<tr>
<td>Children aged 1-3</td>
<td>19 grams</td>
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<tr>
<td>Children aged 4-8</td>
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<tr>
<td>Boys aged 9-13</td>
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<tr>
<td>Girls aged 9-13</td>
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<td>38 grams</td>
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<td>Women aged 19-50</td>
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<tr>
<td>Men aged 50 and older</td>
<td>30 grams</td>
</tr>
<tr>
<td>Women aged 50 and older</td>
<td>21 grams</td>
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EXTERNAL HEMORRHOIDS

- Covered with anoderm, distal to dentate line
  - Painful
  - Unable to be banded
External Thrombosis

- Treatment is excision of anterior roof, express clot – optimal within 2-3 days of onset pain

- Sitz bathes, local wound care

- Recurrence < 20%
Internal Hemorrhoid

• Painless, bright red bleeding at the end of defecation

• Majority of treatment office, outpatient based
  • Fiber and suppositories

• Hemorrhoidectomy for severe prolapsed or complicated disease
MINOR PROCEDURES

- Rubber Band Ligation
"Nurse, get on the internet, go to SURGERY.COM, scroll down and click on the 'Are you totally lost?' icon."
Fissure-in-Ano

- Painful linear ulcer in the anal canal
- More common in younger and middle age, can occur in infants
- Pain is out of proportion to size of lesion
- Location is in the midline, anterior (more common) than posterior
- Cause – trauma to anal canal, improper diet
Anal Fissures: Cause and Management

**Cause**
- Increased sphincter tone
  - Local ischemia
    - Tear (fissure) in anal canal
      - **Severe** pain on defecation

**Treatment options**
- Control constipation, topical steroids
  - **Reduce sphincter tone**
    - Compounded Topical drugs:
      - GTN*
      - diltiazem
    - Botox
    - Surgery

*Rectiv (topical GTN) recently approved by FDA but not yet launched*
Anal Fissure with Sentinel Pile

- Associated with chronicity of problem
- Treatment is Lateral Internal Sphincterotomy - cutting a portion of the internal anal sphincter
Compounded Ointments

- 0.5% nitroglycerin ointment, topical calcium channel blocker (Diltiazem)

- Chemical sphincterotomy

- Treatment 8 weeks, can repeat

- Success rate > 80%, minimal side effects

- Compounding Chemist
Botulin Toxin

- Causes paresis of the sphincter

- 20 units of Type A BT diluted to 50u/ml, injected on both sides of the fissure

- Duration 3 months

- Healing rate 79%-90%
Anorectal Abscess

- More common in men than women, 2:1
- Classification based on location
- Perianal constitute the majority
- Anal fistulas develop in 50%
Treatment

• Incision and drainage: cruciate incision or removing an ellipse of skin over the abscess

• Simple office procedure, local with epi, pack with iodoform gauze to control minor bleeding

• Patient instructions to remove next day and TID wound irrigation

• No role for antibiotics
Treatment

• Large/complicated in the OR to break up internal pockets

• More than 50% result in fistula formation

• Tissue destruction quite extensive, wound healing prolonged
Fistula-in-Ano

- Abnormal communication between any two epithelial-lined surfaces; anal canal and the perineal skin.
- Associated conditions: Crohn’s, UC, Tb, cancer, radiation, trauma, or related inflammation.
- Common presenting symptoms are pain, localized swelling, discharge, and bleeding.
Pilonidal Disease

- Chronic infection of skin in the buttock crease

- More common in men, peaks between puberty and 40

- Most patients develop pilonidal sinus tracts below the skin

- Acute abscess I/D, complicated or recurrent need surgical intervention
Pruritis Ani

- Itching around the anal area

- Cause is usually due to excessive moisture, vigorous cleansing, and overuse of topical ointments
Treatment

• Avoidance of certain foods:
  Tomato based products, milk, caffeine and carbonated beverages, ETOH, chocolate, and cheese

• Cornstarch powder
  (Goldbond) ONLY, cotton

• No soaps, no toilet paper, no scratching or rubbing – rinse with warm water (baby wipes) to cleanse only
**Anal Warts**

- Condyloma Acuminatum, HPV related

- Third most common STD

- Presentation ranges from bleeding to pain

- Differential diagnosis can include squamous cell of the anus
Treatment

- Caustic agents – Podophyllin
- Fulgaration
- Cryotherapy – Liquid nitrogen
- Surgical excision
- Laser therapy
Prevention

- HPV vaccine, recombinant (Types 6, 11, 16, 18)
- Helps protect both genders between the ages of 9 and 26
  - Cervical, vaginal and vulvar cancer
  - Genital warts
Anal Cancer

- Uncommon, 1-2% of GI malignancy’s
- Associated with HPV
- Arise from skin cells – Squamous Cell Carcinoma
- Symptoms variable
Anal Incontinence

- Inability to control the passage of stool or flatus
  - Incidence 2.2%

- Anal competence is a complex neurologic process
Causes

- Injury to the pudendal nerve(s) that innervate the external sphincter.

- Iatrogenic defects, neuropathy, Obstetrical (vaginal deliveries)
Treatment

- Etiology determines treatment, numerous medical tests
- Minor incontinence treated with fiber, dietary changes
- Surgical and biofeedback therapy offer excellent long term outcomes
Recommendations

• Don’t let the anoscope intimidate you!

• Addition of supplemental fiber and water, no matter what the condition

• Minimize moisture and non-steroid based suppositories

• Referral to Surgery/GI for complicated, unresponsive or unexplainable bleeding
THANK - YOU