Anorectal Diseases: Shining a Light at the End of the Tunnel

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Overview

• Anatomy
• Hemorrhoid
• Pruritus Ani
• Anal Fissure
• Abscess / Fistula
• Perianal Crohn’s disease
• Potpourri
Patient #1

- 25 yo female presents with a 2 day history of severe anal pain. She has had some bright red blood per rectum sporadically for the last 2 weeks.
- No significant PMH
- PE: HR 110
  - Abd: soft and NT
  - Rectal exam reveals…….
Thrombosed External Hemorrhoid

Hemorrhoids
Hemorrhoids: General

- ~5% of the US population has symptomatic Hemorrhoids
  - 1 Million people annually are affected
- Protect the sphincters during defecation and may contribute to continence
  - 20% of the resting anal pressure

Hemorrhoids: Types

- External
  - blood clot beneath skin
  - pain and swelling
  - Distal to dentate line

- Internal
  - Usually causes painless bright red bleeding
  - 20% are associated with anal fissure
  - Proximal to dentate line

Most are combination of the two types
Anatomy

- Hemorrhoids are not varicose veins of the anus and distal rectum.

- Hemorrhoids are vascular cushions supported by a complex arrangement of smooth muscle and fibro-elastic tissue.
  - Problems occur when these dilate either b/c of vascular congestion or mucosal prolapse.

Location of Hemorrhoids

- Illustration showing the location of hemorrhoids around the anus and rectum.
Classification of Hemorrhoids

- First degree: vascular tissue bulges into the anal canal.
- Second degree: hemorrhoidal tissue protrudes with a BM but reduces spontaneously.
- Third degree: protrusion occurs spontaneously or requires manual reduction after a BM.
- Fourth degree: hemorrhoids that are protruding & are irreducible manually or strangulated hemorrhoids.

4th Degree Internal Hemorrhoids
Treatment (Non-Surgical)

- Soak in warm tube (Sitz bath)
- Tylenol / Advil
- Topical Analgesics
  - Analpram 1% or 2.5%
  - Lanocaine
  - Cool Witchazel
- Stool Softeners
- Fiber and water talk

Treatment (Surgical)

- When to Refer:
  - All thrombosed and painful hemorrhoids (excision)
  - Fail conservative medical treatment
- Options
  - Rubber band ligation (most common – 1st and 2nd degree)
  - Infra-red coagulation
  - Sclerotherapy
  - Procedure for Prolapse & Hemorrhoids (PPH) (3rd and 4th degree)
Patient #2

- 41 yo female with history of perianal Crohn’s disease
- Treated with immunomodulators and Infliximab for last several years without symptoms.
- Over last 3 mns began experiencing perianal pruritus and mild pain.
  - No fever or slight increase in stool frequency to 3 semi-formed stools per day
- Normal PE and labs. Proceeded with Colonoscopy

Patient #2 – Video of Colonoscopy
Pruritus Ani

• Generally present with intractable perianal itch causing desire to scratch →→ excoriations

• Affects 1-5% of the population

• Most is idiopathic but can be from poor hygiene, over aggressive cleansing, infections (yeast, fungal)
Pruritus Ani - Treatment

- Avoid Scratching
- Wash only with water (avoid soap) and dry well
- Clean well after BM (baby wipes)
- Avoid foods with caffeine, spicy or citrus foods
- Antihistamines at bedtime
- Topical steroid ointments
- Consider referral to Dermatology if no improvement

Patient #3

- 42 yo male presents with a 2 week history of severe pain with defecation.
  - began after he was on narcotics recovering from knee surgery.
- Now feels tearing sensation when he has BM and passes bright red blood per rectum about 1/3 of the time he has a BM
Patient #3-Continue

- **PMH**: Only significant for HTN and recent knee surgery
- **Meds**: Ibuprofen, Lopressor
- **PE**: Normal vitals
  - Abd: soft and NT
  - Rectal: Not able to perform in office b/c he is exquisitely tender
  - Set him up for flex sig with sedation that allows you to also do better DRE and you see……..
Anal Fissures

Symptoms include: Pain with defecation, bright red blood per rectum, and pruritus

On exam will see tear or ulceration in anal canal

Fissures occur:
- Posterior mid-line (>80%)
- Ant Mid-line (10-15%)
- Any other location or multiple r/o Crohn’s
Anal Fissure - Pathophysiology

- Trauma → Tear
- Pain → Spasm
- Ischemia → Chronic fissure

Acute Anal Fissure - Treatment

- Almost all heal with conservative care
  - Fiber / stool softeners / water
  - Sitz Bath
  - Topical agents
  - Steroids
  - Anesthetics
Chronic Anal Fissure - Treatment

• Medical:
  – Nitroglycerin Ointment (0.2% or 0.4%) twice daily
    • In RCT of 80 pts with chronic fissure 68% of those given NTG for 8 weeks healed vs. 8% for placebo (p < 0.0001)¹
    • Major Side effects is headache in up to 25% (lower if apply endoanal)
  – Calcium channel blocker Ointment – Nifedipine (0.2%)
    • In RCT of 283 pts, 95% of pts given Nifedipine healed vs. 50% for placebo (p<0.01)²
  – Botulinum Toxin (15 -20 units)
    • No better than nitroglycerin in studies and recurrence rates of up to 55% at 3 years. ³⁴


Chronic Anal Fissure - Treatment

• Surgical:
  – Manual Dilation (incontinence rates of 50%)¹
  – Lateral Internal Sphincterotomy (incontinence rates from 0-30%)²

Patient #4

- 30 yo male presents with 3 month history of perianal pain and drainage. No change in stool habits.
  - Treated empirically with metronidazole with only minimal improvement
  - Colonoscopy with TI intubation and bx are normal
- FH: positive for Crohn’s
- PE: Normal except rectal exam which showed…
Perianal Fistulas

Perianal Fistulas - General

- Occurs in both Crohn’s and non-CD population (cryptoglandular disease)
  - <0.1% general population but > 20% of pts with CD
  - Treatment is very different so important to differentiate
Park's Classification of Perianal Fistulas

- A: Superficial
- B: Intersphincteric
- C: Trans-sphincteric
- D: Suprasphincteric
- E: Extrasphincteric

Simple vs. Complex Fistula

Simple

Complex
Abscesses
Setons

- Involves placing surgical material through the fistula to control and maintain drainage during treatment
  - For cryptoglandular disease cutting setons used to work their way through the sphincter complex

- Usually uses silicone or sutures (preference for silicone “non-cutting” in CD related fistulas)
## Medical Therapy for PCD

### MEDICAL THERAPIES

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<th>Probable Efficacy</th>
<th>Proven Efficacy</th>
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<tr>
<td>Antibiotics</td>
<td>Infliximab</td>
</tr>
<tr>
<td>Azathioprine / 6-Mercaptopurine</td>
<td>Tacrolimus</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>? Adalimumab</td>
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<tr>
<td></td>
<td>? Certolizumab</td>
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Antibiotics

- Metronidazole: Typical dose is 250 - 500mg po tid /qid, improvement seen after 6-8 weeks.
  - Initial study conducted by Bernstein et al 1
    - 21 patients studied, healing seen in 83%
  - Three other studies found healing rate of between 34 - 50%

1-Bernstein et al. *Gastro* 1980
2-Schneider et al. *Deutsche Med W* 1981
3-Jakobovits et al. *American J Gastro* 1984
4-Schneider *Deutsche M W* 1985
5.Brandt et al *Gastro* 1982

**Antibiotics – Fistula Response**

IBD, 2008
Azathioprine / 6 - MP

- The 5 Controlled trials were summarized in a meta-analysis¹
  - 22 / 41 (54%) of patients who received AZA /6-MP responded vs. 6 / 29 (21%) who received placebo.
  - Pooled odds ratio was 4.44 in favor of fistula healing


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Tacrolimus (FK-506)

The double blinded placebo study of 48 patients randomized to receive 0.20mg/kg/day for 10 weeks. Primary endpoint was improvement defined as closure of ≥ 50% fistulas and maintenance of closure for ≥ 4 weeks.

Week 10 Results

<table>
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<tr>
<th>Tacrolimus</th>
<th>Placebo</th>
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<tr>
<td>43</td>
<td>8</td>
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Only 10% had closure of all fistulas

Infliximab for Crohn’s Perianal Fistulas

Primary endpoint; > 50% reduction in open fistulas

**Initial Fistula Response to Infliximab**

- **N=94**
- **Primary endpoint; > 50% reduction in open fistulas**
- **Present et al., NEJM 1999**
- **p < 0.001**
- **p = 0.041**

### Anti-TNF Maintenance Therapy for CD Related Fistulas

- **Infliximab**
  - **10mg/kg**
  - **5mg/kg**
  - **Placebo**
  - **1-Sands et al., NEJM 2004**
  - **2-Colombel, Gut 2009**
  - **3-Schreiber S, et al. APT, 2011**

- **Adalimumab**
  - **40mg every 2 weeks**
  - **40mg weekly**
  - **Both Groups**

- **Certolizumab**
  - **N=28**
Utilizing EUS to Improve Fistula Healing

1. Initial Prospective Pilot Study
2. Recent Follow-up Prospective Study

2. Wiese, Schwartz Am J Gastro 2011 (ab)
1. History and physical exam
2. Endoscopy to assess activity of Crohn’s disease
3. Imaging study (EUS or MRI) to delineate perianal disease process
4. Exam under anesthesia (EUA)

**Simple fistula without rectal inflammation**
- Antibiotics and AZA/6-MP
- Consider anti-TNF

**Simple fistula with rectal inflammation**
- Antibiotics, AZA/6-MP & Anti-TNF (consider monitoring healing with repeat imaging study)

**Complex fistula**
1. Seton placement
2. Antibiotics, AZA/6-MP & Anti-TNF (consider monitoring healing with repeat imaging study)

1. Fistulotomy
2. Consider fibrin glue, fistula plug or endorectal advancement flap
3. If 1 or 2 fails, treat as complex fistulizing process

1. Consider Tacrolimus in selected patients
2. Proctectomy

1. Remove seton
2. Continue maintenance AZA/6-MP & Anti-TNF

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**Anorectal Potpourri**
Skin Tags…Which Patient has Crohn’s

Is This Perianal Crohn’s?
Rectal Prolapse

Are These Skin Tags?
Thank you for your time!