POSTERIOR PELVIC FLOOR PROBLEMS

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Our first patient

- I have something that falls out of my rectum
- Started about 6 months ago and comes out every time I poop
- No pain but uncomfortable & I have to push it back in

Our first patient

- Now what?
Important questions to ask
- How often do you move your bowels?
- Do you strain?
- Do you have any bleeding?
- Other associated issues

PMH & PSH
- Colonoscopy?
- Meds
- Fam Hx
- OB Hx

Our first patient

Exam:

Prolapsing hemorrhoids vs Rectal prolapse
Non-Painful Anorectal Conditions with bleeding

- Hemorrhoids
- Cancer
- Fistula
- Infections (herpes, condyloma)
- Prolapse
- Skin conditions and itching
What is the medical treatment for symptomatic hemorrhoids?

- Slowly increase fiber intake to 20-35 grams daily
- Meta-analysis--fiber improves sx and bleeding
- Adequate non-caffeine fluid

Nonoperative Treatment for all with Hemorrhoids
- Reduce straining
- Bulking agents (Metamucil, Citrucel)
- Avoid reading on the toilet
Our first patient

- When is surgery (or a procedure to address the problem) indicated?

Hemorrhoids: Procedures for Treatment

- Rubber band ligation
- Sclerosis
- Infrared coagulation
- Excisional hemorrhoidectomy
- Procedure for Prolapsing Hemorrhoids (PPH)
  Stapled anopexy
- Doppler guided hemorrhoidopexy

Rubber Band Ligation: Fixation

- Works best for 1st and 2nd degree
- May require multiple treatments
- At 10 years 18-32% required repeat banding and 2% required formal hemorrhoidectomy

Low but important risk of life threatening sepsis
Hemorrhoidectomy

- Long-term need for subsequent treatment low after excision
- Both open and closed have similar post-op pain, analgesia, LOS, complications
- The greatest concern with hemorrhoidectomy is post-op pain
- Use of energy devices (Harmonic and Ligasure™) may lead to reduced pain, but device costly
- The use of post-op oral or 10% topical metronidazole may decrease pain

Hemorrhoidectomy/Excision

Only 5-10% of patients require operative hemorrhoidectomy

Hemorrhoid Suspension with Circular Stapling Procedure for Prolapsing Hemorrhoids (PPH)
- Post-op no sx 65%
- 18-37% had recurrence
- Further Tx: 7-25%
- Being used less and less

Ceci et al DCR 2008
Wolthuis et al Acta Chir Belg 2012

### Doppler Guided Hemorrhoid Artery Ligation

- Transanal Hemorrhoidal Dearterialization (THD™)
- Doppler Guided-Hemorrhoid Artery Ligation with Rectoanal Repair (DG-HAL RAR)
- Ligate terminal branches of hemorrhoid artery
- Allows for completion of hemorrhoidopexy
- Minimal post-op pain

### Doppler-guided Hemorrhoid Artery Ligation: Systematic Review

- N=2904 in 28 studies
- Recurrence 3-60% (pooled 17%) highest 4th degree
- Mean OP time 19-35 min
- Post op analgesia 0-38%
- Post op bleeding 5%

Pucher et al Colorectal Dis 2013
Our first patient

- Hemorrhoidectomy was done after all other treatments failed
- What diet recommendations do we make after this treatment?
- How do we manage the anal area?

ONE LAST THING:

This 23 year old woman comes for surgery on her hemorrhoids

What are you thinking?
Our second patient

- 39 year old male construction worker
- “hemorrhoids” for last 2 months
- Severe pain and itching with defecations

Our second patient

- BM daily sits on toilet and reads newspaper
- Takes a while for stool to come out
- No meds no surgeries
- Married for 10 years

Our second patient

- Exam in office is difficult as he has a very deep buttock cleft and you can barely see the anal verge
- WHAT DO YOU THINK IS GOING ON?
Painful Anorectal Conditions

- Fissures
- Anal skin irritation
- Hemorrhoids
- Cancer invading the anus
- Abscess/Fistula
- Infections (herpes, condyloma)
- Prolapse

Exam Under Anesthesia

- What I expect to find
Anal Fissure

• Most common unrecognized anal problem
• 90% posterior and 10% anterior
• Usually confused with hemorrhoids

Bleeding—non existent to dripping in the toilet bowel
With chronic fissure, may have edematous tag which is mistaken for a hemorrhoid
IAS spastic
NO DIGITAL EXAM (if tender)
Simply spreading buttock causes pain and demonstrates fissure
Medical Treatment of Anal Fissure

- Increase dietary fiber (supplements Metamucil/Citrucel)
- Drink 6-8 glasses fluid/day
- Stool softener / Colace
- Sitz baths
- Avoid suppository
- 2% lidocaine ointment

Medical Treatment of Anal Fissure

- Creams to distal anal canal to relax the IAS
- Must be compounded
  - 0.2% topical Nitroglycerin cream (headache)
    - Diltiazem or nifedipine cream: no headache
- Botulism toxin injection—paralyze IAS (expensive, can have transient fecal incontinence)

Surgical Treatment of Anal Fissure

- Sphincterotomy
  - After failed medical therapy
  - Divide IAS from dentate line distally
  - Complete relief of spasm type pain
  - Side effects: fecal incontinence usually for flatus (rare)
• Back to our patient
• So with this in mind he has an exam under anesthesia
• Again I expect to find an anal fissure

Our second patient

• Anal exam still difficult due to his deep buttock cleft
• To my surprise
• No fissure
• You see.....

Our second patient

• Going out to speak to his wife: she also has “painful” itching
Polishing the anus

- Wiping
- Creams, lotions, potions,
- Cleaning

Our third patient

- 55 yr old diabetic female lawyer
- Partner in high pressure law practice
- Crying in the office
- Leaks stool especially when loose
Our third patient

• She wears a pad
• Trouble especially when under stress
• G0P0

Our third patient

Exam:

• Normal exterior with no real gapping muscle
• Decreased rest and squeeze
Fecal Incontinence

Comprehensive History: crucial first step
- Duration, frequency
- Quality of stool lost
- Flatus control
- Pad use
- Urgency
- Affect on daily life
- Urinary incontinence
- Obstetric history
- Surgical history
- Other medical problems
- Medications
- Psychosocial ramifications of incontinence

Fecal Incontinence

Mature Women’s Health Study
- 1/5 Fe >45 years FI at least yearly
- 40% severe impact QOL
- 1/3 seek treatment
- “accidental bowel leakage”


Fecal Incontinence

- Set realistic expectations
- Goal: improvement especially QOL
- Individualize treatment plans which may include a combination of multiple therapies
- Life long chronic disease requiring many adjustments in treatment
What treatment do you recommend?

**Medical therapy**
- Treat diarrhea, fiber, bowel stoppers, enema
- Biofeedback/PT
- Anal plug
- Radiofrequency
- Injectable treatment

**Surgical therapy**
- Anterior overlapping sphincter repair
- Sacral nerve stimulation
- Artificial Bowel Sphincter
- Stoma

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**Fecal Incontinence**

*Non-Surgical Treatment: forgotten aspects*
- Skin care
- Barrier creams for protection
- Cotton ball by anus
- Use of baby wipes
- Enema or rectal washout

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**Fecal Incontinence: Medical Treatment**
- Evaluate and treat diarrhea/ meal urgency
- Biofeedback
- Anal plug
- SECCA
Fecal Incontinence: Medical Treatment
- Evaluate and treat diarrhea
- Biofeedback (pelvic floor retraining)
- Anal plug
- SECCA

Pelvic Floor Retraining: Biofeedback
- Uses EMG or manometry for visual input (auditory or visual cue)
- Inexpensive (although many insurance companies view it as experimental)
- Painless, easy to perform, does not exclude other tx
- Requires a motivated patient capable of understanding the treatment AND MOTIVATED THERAPIST

Biofeedback: Protocols
Cochrane Review
- Few well designed studies
- No clear protocol or patient selection
- Treatment does not worsen problem but varied results
- “some portions of biofeedback and sphincter exercises may have therapeutic effect”

Norton, Cody Cochrane Database Review July 2012
Fecal Incontinence: Medical Treatment

- Evaluate and treat diarrhea
- Biofeedback
- Anal plug
- SECCA

- 4 studies: 136 patients
- May be effective for minor leakage
- 1/3 do not tolerate

Deutekom, Cochrane Database Review April 2012

Fecal Incontinence: Medical Treatment

- Evaluate and treat diarrhea
- Biofeedback
- Anal plug
- SECCA

Radio-frequency delivered to target temperature of 85°C for 1 min 23-32 times in anal canal

SECCA

- N=24; Wexner 16 to 13 (P=0.035) w/ improvement ¾ FIQOL scores (Riaz, Pinto, Hull DCR 2010)
- N=27; sustained long-term improvement in 22%, 52% needed additional treatment (Abbas et al DCR 2012)
- If considering injectables do SECCA before
Injectable Agents

- Injectable stabilized hyaluronic acid
- n=206 randomized double blinded sham controlled trial
- 52% >50% reduction in FI vs 31% control (p=0.0089)
  One rectal abscess and one prostatic abscess
  Sustained results at 36 mos
  Graf et al Lancet 2011
  Mellgren et al DCR 2013

Injectables

- Diversity of material and lack of well designed studies prohibited Cochrane reviewers to make any conclusions
- Review of 13 case series and one RCT of 420 patients also could not make definitive recommendations
  Maeda, et al Cochrane Database Review May 2010
  Luo et al Colorectal Dis 2010

Injectables

- We have minimal evidence-based information to guide us regarding injectables
- **SEVEN** different techniques in literature
- Where to inject; what route; how much???
- Are laxatives important?
- Would we improve results if done in OR?
- RCT with sufficient number of patients and longer F/U needed
Fecal Incontinence: Surgical Treatment

- Overlapping sphincter repair
- Artificial bowel sphincter
- Sacral nerve stimulation
- Stoma
- Rarely or unable to use Graciloplasty ACE
- Not used Park’s post anal repair

Overlapping Sphincter Repair

- Most common procedure for repair of anterior defect

ADVANTAGES

- Relatively easy
- Low cost
- No fancy equipment needed
- Can be done globally in any OR

Long-term Results of Overlapping Sphincter Repair
Overlapping Repair: **FINAL THOUGHTS**

- Long term results of overlapping sphincter repair may not be as good as previously assumed
- Overlapping repair of anterior defect is **STILL** reasonable treatment especially in young woman after an obstetrical injury

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**Results of ABS**

- N=52 1996-2010
- F/U 64 +/- 46.5 mos
- 26 (50%) required revision (most due to microperforation)
- 14 (26.9%) definitive explantation (43% due to infection)
- 35 with active device: fecal incontinence score (p<0.0001) and QOL (p=0.029) had significant improvement

Wong et al Ann Surg 2011

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**Artificial Sphincter: Complications**

- Range from 23-67%
- Infection/perineal wound problems
- Mechanical failure
- Difficult evacuation

*Still about 30% after learning curve*

Artificial Bowel Sphincter

Consider for:
- 30% failed SNS
- Congenital malformation
- Absent sphincters
- Significant loss of tissue due to injury

Sacral Nerve Stimulation

- 1994 first used for FI
- FDA approved in US 2011
- Method of implantation allows a test phase before permanent device inserted

Indications: FI due to
- Obstetric injury
- Sphincter defect
- Anal trauma
  - Cauda equina syndrome
  - FI with pelvic pouch
  - Rectal resection
  - Crohn’s disease with sphincter disruption
Sacral Nerve Stimulation

- FDA monitored study of 120 patients
- 80% > 50% improvement
- FI/wk 9.1 to 1.7 (p<0.001)
- 40% totally continent
- These results sustained at 5 years
- 13/120 had infection: 6 required explant

Wexner 2010; Mellgren 2011; Hull 2013

Sacral Nerve Stimulation

**Meta-analysis** of 34 studies:
- 944 pts with PNE and 665 permanent SNS
- Weekly episodes FI and incontinence scores significantly reduced
- Ability to defer defecation increased
- Similar results +/- sphincter defect
- Complication rate was 15% (3% permanent explantation)

Tan et al Int J Colorectal Dis 2011

Sacral Nerve Stimulation

14 studies + 9 with sphincter lesions all pos PNE and had permanent implant:
- 77% improvement idiopathic FI
- 76% improvement in sphincter defect (17-180°)
- 78% improvement after OSR
- 73% improvement w/ neurologic injury
- Sustained benefit up to 14 years
- Reduction in clinical efficacy 26% long-term

Matzel Colorectal Dis 2011
**Sacral Nerve Stimulation**

**Advantages of SNS**
- Done under local & sedation
- Not dependant on sphincter morphology
- Works for SUI, ? Constipation, ? IBS
- Good results

**Disadvantages of SNS**
- 30% will not benefit
- % will not be eligible
- 5-26% device related complications
- Expensive
- Cannot be done without C arm facility
- No MRI from neck down

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**Fecal Incontinence: Stoma**

- For patients who have failed or are not candidates for other surgical repairs
- Can be done via a minimally invasive approach
- Preop marking crucial
- Allows opportunity to leave home, attend work, and social functions

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**Our third patient**

What are your treatment choices and why? How do you decide?
Our third patient

What we did
- Imodium
- Anal care
- Wiping instructions
- Diet modification
- Enema therapy
- Physical therapy retraining

Thanks for your attention