Management of Benign Anorectal Problems

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Common Anorectal Disorders

- Presentation
- Evaluation
- Specific disorders
  - Workup
  - Treatment
Common Anorectal Disorders

SYMPTOMS AND SIGNS

**Symptoms**
- Pain
- Bleeding
- Protrusion
- Seepage & Soilage
- Itching
- Change in BM

**Signs**
- Tenderness
- Fluctuance
- Erythema
- Mass
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EVALUATION

- Patient reluctance
  - Fear of pain
  - Fear of cancer
- Physician responsibility
  - Place the patient at ease
  - Impart concerned, attentive, and confident attitude
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EVALUATION

- Patients’ lack of knowledge of the anorectal region results in every symptom being attributable to hemorrhoids
- Exclusion of a proximal malignancy should be considered
- Most patients with anorectal complaints should undergo some form of proctosigmoidoscopy during their evaluation and treatment
Common Anorectal Disorders

EVALUATION
Common Anorectal Disorders

EVALUATION
EVALUATION

Positioning

Prone

Simms
Common Anorectal Disorders

EVALUATION

Inspection
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EVALUATION

Palpation
EVALUATION
Anoscopy
EVALUATION

Proctoscopy
EVALUATION
Flexible Endoscopy
Common Anorectal Disorders

SPECIFIC DISORDERS

- Hemorrhoids
- Fissure
- Fistula & abscess
- Condyloma
- Rectal Prolapse

- Fecal incontinence
- Pilonidal disease
- Hidradenitis suppurativa
- Anal neoplasms
Common Anorectal Disorders

HEMORRHOIDS

Anatomy

- Vascular cushions
  - Blood vessels
  - Connective tissue
  - Smooth muscle
- Constant position
  - Left lateral
  - Right anterior
  - Right posterior
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HEMORRHOIDS

Anatomy

- External hemorrhoids
  - Distal to the dentate line
  - Squamous epithelium (skin)
  - Nerve endings

- Internal hemorrhoids
  - Proximal to the dentate line
  - Columnar epithelium (mucosa)
  - No nerve endings
HEMORRHOIDS

Prevalence

- 4.4% of US populations seen by physician for symptomatic hemorrhoids
- 49/100k US population undergo hemorrhoidectomy annually
HEMORRHOIDS

Etiology

- Elevated intra-abdominal pressure
- Pregnancy
- Constipation
- Weight lifting
- Chronic straining

All lead to sliding down of the cushions, stretching of the muscular support, and prolapse
HEMORRHOIDS

Function

- Aid in continence
  - Act as a plug
- Protect sphincters/anus from the trauma of defecation
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HEMORRHOIDS

Symptoms

Internal

- Bleeding
- Protrusion
- Seepage/soilage
- Staining
- Pruritus
- Rarely painful
INTERNAL HEMORRHOIDS

Indications for Therapy

- Failure of conservative measures
  - High fiber diet
  - Plenty of fluids
  - Fiber supplements
  - Stool lubricants/softeners

- Continued symptoms
  - Bleeding
  - Protrusion
  - Pruritus/irritation
  - Pain
  - Seepage and soilage
  - Difficulty with hygiene
INTERNAL HEMORRHOIDES
Management

Office based procedures
- Rubber band ligation (RBL)
- Injection sclerotherapy
- Infrared coagulation
- Bicap
- Ultroid
- Sonographic ligator

Surgical procedures
- Excisional hemorrhoidectomy
- Sphincterotomy
- Anal stretch
- Stapled Anopexy
  - PPH
Common Anorectal Disorders

INTERNAL HEMORRHOIDS

Management

Dietary / Lifestyle Changes
- Ointments & Creams
- Suppositories
- Fiber Diet
- Water
- Stool softeners
- Bulk agents
- No Reading on the toilet
- Sitz bathes

Office Treatments
- Rubber Band Ligation
- Infrared Coagulation
- Sclerotherapy
- Bicap/ultroid
- HALS

Surgical Treatments
- Traditional Excisional
  - Ferguson (Closed)
  - Milligan Morgan (Open)
  - Utilizing Scalpel, RF (LigaSure), Ultrasonic, cautery
- Circumferential Mucosal Resection
  - Stapled (PPH)

Grade I & II

Grade I, II, ~III

Grade III and IV
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INTERNAL HEMORRHOIDS

Management -- Grade I Hemorrhoids

- Internal
- Non - Prolapsed
- Light Bleeding
- Agitation

Treatment Options
- Diet
- Topical Ointment
- RBL
- Coagulation
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INTERNAL HEMORRHOIDS

Management -- Grade II Hemorrhoids

- Internal
- Prolapse w/ Spontaneous Reduction
- Bleeding
- Seepage

Treatment Options
- Office therapy
- Surgery
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INTERNAL HEMORRHOIDS
Management -- Grade III Hemorrhoids

- Internal
- Prolapsed
  Requiring Digital Reduction

Treatment Options
- Surgical
- Rubber Band Ligation
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INTERNAL HEMORRHOIDS

Management -- Grade IV Hemorrhoids

- Internal
- Prolapsed
CANNOT be reduced

Treatment
- Surgical
Hemorrhoidectomy
Management – Rubber band ligation
Management – Rubber band ligation
Management – Rubber band ligation
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INTERNAL HEMORRHOIDS

Management

**Surgical Hemorrhoidectomy**

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

Surgical Options

- Excision
  - Closed v. Open
  - Knife/scissors
  - Laser
  - Cautery
  - Radiofrequency – LigaSure
  - Ultrasonic Scalpel
- Ligation
- Stapled anopexy -- PPH
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INTERNAL HEMORRHOIDS

Surgical Options -- Excisional
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INTERNAL HEMORRHOIDS

Surgical Outcomes

- Painful
- Bloody
- Complications
  - Hemorrhage
  - Infection
  - Urinary retention
  - Fecal impaction
  - Anal stricture
  - Sphincter injury/incontinence
  - Wet anus/ectropion

ALTERNATIVES
Common Anorectal Disorders
INTERNAL HEMORRHOIDS
Surgical Options -- Ligasure™
Common Anorectal Disorders

INTERNAL HEMORRHOIDS

Surgical Options -- Ligasure™

- Safe and effective alternative
- Rapid and bloodless
- No differences compared with standard surgery in post-op
  - Pain
  - Complications
- Earlier return to work

Nienhuijs, Cochrane Dat Sys Rev, 2009
Common Anorectal Disorders
INTERNAL HEMORRHOIDS
Surgical Options -- PPH
Common Anorectal Disorders

INTERNAL HEMORRHOIDS

Surgical Options -- PPH
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INTERNAL HEMORRHOIDS

Surgical Options -- PPH
INTERNAL HEMORRHOIDS
Surgical Options -- PPH

- PPH versus Traditional Hemorrhoidectomy
  - eTHos trial
  - 777 RCT
  - No difference in short-term outcomes
  - PPH higher recurrence rate

- PPH versus Ligasure Hemorrhoidectomy
  - Meta-analysis of 5 RCT’s
  - No difference in short-term outcomes
    - Bleeding, pain, incontinence
  - Higher recurrence rate in PPH
    - 7% reintervention
  - More residual prolapse and skin tags in PPH

2. Yang, World J Gastro 2013
INTERNAL HEMORRHOIDS
Surgical Options -- HAL

- Doppler guided Transanal Hemorrhoidal Arterial Ligation (HAL) vs Traditional Hemorrhoidectomy
- Meta-analysis
- 4 trials/316 patients
- No difference in short term outcomes
- No difference in recurrence
- Longer operative times with HAL

1. Xu, Tech Coloproct 2016
Common Anorectal Disorders

HEMORRHOIDS

Symptoms

- **External**
  - Protrusion/lump
  - Pain if thrombosed
  - Seepage/soilage
  - Staining
  - Pruritus
  - Bleeding only if ruptured
EXTERNAL HEMORRHOIDS
Management

- Symptomatic relief
  - Sitz baths
  - Stool softeners
  - Pain medications
- Excision
- Thrombectomy
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ANAL FISSURE

Anatomy

- **Females**
  - 90% posterior
  - 10% anterior

- **Males**
  - 99% posterior
  - 1% anterior
  - Distal to dentate line
Common Anorectal Disorders

ANAL FISSURE

Anatomy

- Atypical location
  - Crohn’s disease
  - Malignancy
  - Tuberculosis
  - Syphilis
  - CMV
  - HIV
  - Trauma
ANAL FISSURE

Etiology

- Trauma
  - Large hard stool
  - Diarrhea
- Hypertonic/hyperspastic internal sphincter
- Diminished blood flow/Ischemia
ANAL FISSURE

Etiology

- Trauma
- IAS Irritation
- IAS Tone
- Blood Flow
- Ischemic Ulcer

Duke Surgery
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ANAL FISSURE

Symptoms

- Pain
- Spasm
- Bleeding
- Seepage/soilage
- Difficult evacuation
Common Anorectal Disorders

ANAL FISSURE

Chronic

- Sentinel skin tag
- Hypertrophic papilla
- Exposed IAS
- Hyperspastic IAS
- Anal stenosis
- Fistula
ANAL FISSURE Management

- Symptomatic relief
  - Sitz baths
  - Stool softeners
  - Pain medications
- Topical nitroglycerin
  - 50% success
- Topical Ca Channel Blocker
  - 65% success
- Botox injection
  - Variable success (50-75%)
  - Dose related
- Lateral internal sphincterotomy
  - 90-100% Success
- Anoplasty
ANAL FISSURE
Management
Common Anorectal Disorders

ANORECTAL SUPPURATION

Acute: abscess
Common Anorectal Disorders

ANORECTAL SUPPURATION

Chronic:

fistula
ANORECTAL SUPPURATION

Etiology

- Cryptoglandular
- Carcinoma
- Crohn’s disease
- Foreign body
- Trauma
- Surgery
- Radiation
- Tuberculosis
- Actinomycosis
- LGV
ANORECTAL SUPPURATION

Abscesses: Classification
# ANORECTAL SUPPURATION

## Classification

### Abscess
- Perianal: 20%
- Intersphincteric: 18%
- Ischiorectal: 60%
- Supralevator: 2%

### Fistula
- Intersphincteric: 70%
- Transphincteric: 23%
- Suprasphincteric: 5%
- Extrasphincteric: 2%
ANORECTAL SUPPURATION
Fistulae: Classification
ANORECTAL SUPPURATION
Management

- Abscess
  - Drainage
- Fistula
  - Fistulotomy
  - Fistulectomy
  - Staged fistulotomy
  - Mucosal advancement flap
  - Anoplasty
  - Fibrin glue
  - **LIFT procedure**
ANORECTAL SUPPURATION

Management

- Transphincteric fistula
- Ligation of Intersphincteric Fistula Tract (LIFT)
  - Place seton
  - Incision at intersphincteric groove
  - Identification of the intersphincteric tract
  - Ligation of the intersphincteric tract close to the internal opening and removal of the interphincteric tract
  - Curreting granulation tissue in the fistula tract
  - Suturing the defect in the external sphincter muscle
ANORECTAL SUPPURATION
Management
ANORECTAL SUPPURURATION
Management

- LIFT procedure
  - Meta-analysis
    - 1110 patients
    - 24 studies
      - Only one RCT
      - 76% success rate
  - Compared to endorectal advancement flap
    - Systematic review shows equivalent success rate
    - Continence better with LIFT

1. Hong, Tech Coloproct 2014
2. Stelligwerf, BJS 2019
ANORECTAL SUPPURATION
Management

Antibiotics

- Sepsis
- Cellulitis
- Immunosuppression
  - DM
  - HIV
- Prostheses
  - Valvular
  - Joint
  - Intravascular
Common Anorectal Disorders

Rectal Prolapse

Symptoms

- Incontinence
- Constipation
- Protrusion
- Bleeding
- Discharge
- Sensation of incomplete emptying
- Rectal pressure/tenesmus
Rectal Prolapse Evaluation

Examination on the commode may be crucial

Prolapse

Hemorrhoids
# Rectal Prolapse

## Treatment

**Abdominal repair**
- Rectal fixation
- Sigmoid resection
- Proctectomy
- Combination of rectal fixation and sigmoid resection
- Anterior mesh rectopexy

**Perineal repair**
- Full thickness resection
- Mucosal resection with muscular reefing
- Anal encirclement
Fecal Incontinence Classification

- Pseudo-incontinence
  - Seepage and soilage
  - Frequency
  - Urgency
- Overflow incontinence
- Diarrheal states
- Sphincter disruption
  - Obstetrical injury
  - Anorectal procedures
  - Trauma
- Pelvic floor denervation
- Pudendal neuropathy
Fecal Incontinence Evaluation

- History and physical
  - Inspection
  - DRE
  - Endoscopy

- Physiologic workup
  - Anal manometry
  - Endoanal ultrasound
  - Anal EMG
  - Cine defacography
Fecal Incontinence
Treatment

- Medical management of underlying conditions
- Constipating regimens
- Biofeedback therapy
- Sacral Nerve Stimulator
- Sphincter repair
- Levator muscle imbrication
- Encirclement procedures
- Sphincter replacement
  - Muscle transposition
  - Prosthetic neosphincter
Condyloma Acuminata

Etiology

- Sexually transmitted
- Human papilloma virus
  - 66 known types
  - Types 16 & 18
    - Dysplasia
    - Malignancy
- 1 million new cases diagnosed annually
Condyloma Acuminata

Risk Factors

- Homosexual males
- Anoreceptive intercourse
- Immunosuppression
- HIV
Condyloma Acuminata

Symptoms

- Visible/palpable warts
- Pruritus
- Seepage/soilage
- Bleeding
- Wetness
- Discomfort
Condyloma Acuminata Management

- **Caustic agents**
  - Podophyllin
  - Bichloroacetic acid
  - Trichloroacetic acid

- **Surgical**
  - Excision
  - Fulguration
  - Laser therapy
  - Cryotherapy

- **Immunotherapy**
  - Autologous vaccines
  - Imiquamod (Aldara)
  - Interferon

- **Chemotherapeutics**
  - 5-FU
  - Bleomycin
  - Thiotepa
Condyloma Acuminata
Management

- Recurrence rates: 8-40%
- Anal canal lesions present in 35-45% of patients
- Treatment of perianal lesions without treatment of anal canal lesions and partner(s) is doomed to failure
Common Anorectal Disorders

Anal Neoplasms

Classification

Anal margin

- Squamous cell carcinoma
- Basal cell carcinoma
- Paget’s disease
- Bowen’s disease
Anal Neoplasms
Classification

Anal canal

- Epidermoid carcinoma
  - Squamous cell carcinoma
  - Transitional cell carcinoma
  - Cloacogenic carcinoma
  - Basaloid carcinoma
- Adenocarcinoma
- Malignant melanoma
- Sarcoma
Anal Neoplasms

Symptoms

- Bleeding
- Pain
- Presence of a mass
- Pruritus
- Discharge

Up to 30% of cases are misdiagnosed as various benign anorectal disorders
Anal Neoplasms

Treatment

- Wide local excision
- Abdominal perineal resection
- Radiotherapy
- Combination chemo-radiation
Common Anorectal Disorders
Hidradenitis Suppurativa

- An acute or chronic infection of the apocrine sweat glands
- Results in abscess and sinus tract formation
- May occur in the neck, axilla, inframammary folds, groins, genitals, perianal region, scalp, and periumbilical region
Hidradenitis Suppurativa
Risk Factors

- Obesity
- Heavy perspirers
- African American race
- Mechanical irritation
- Local trauma
Hidradenitis Suppurativa

Treatment

- Good hygiene
- Antibiotics
- Incision and drainage of abscesses
- Wide excision
- Unroofing of tracts
- TNF inhibitors
Pilonidal Disease

Etiology

**Congenital theory**
- Remnants of the medullary canal
- Developmental dermal inclusions
- Vestigal sex glands

**Acquired theory**
- Reaction to imbedded hair
- Infection within an occluded hair follicle
- The presence of hair perpetuates the process
Pilonidal Disease

Predisposing Factors

- Hirsutism
- Chronic trauma
- Deep intergluteal fold
Pilonidal Disease

Presentation

- Acute
  - Pilonidal abscess
- Chronic
  - Pilonidal sinus
Pilonidal Disease
Treatment

- Pit excision
- Cystotomy
- Wide local excision
  - With or without closure
- Lateral excision
- Flaps
- Cleft closure
Common Anorectal Disorders

Conclusions

- Remember if the diagnosis is unclear or in doubt, or the patients does not readily respond to treatment, REFER the patient to a specialist for further evaluation.