**Project:** Ghana Emergency Medicine Collaborative

**Document Title:** Emergency Management of Ano-Rectal Disorders

Author(s): Joseph H. Hartmann (University of Michigan), DO 2012

**License:** Unless otherwise noted, this material is made available under the terms of the **Creative Commons Attribution Share Alike-3.0 License**: http://creativecommons.org/licenses/by-sa/3.0/

We have reviewed this material in accordance with U.S. Copyright Law and have tried to maximize your ability to use, share, and adapt it. These lectures have been modified in the process of making a publicly shareable version. The citation key on the following slide provides information about how you may share and adapt this material.

Copyright holders of content included in this material should contact **open.michigan@umich.edu** with any questions, corrections, or clarification regarding the use of content.

For more information about **how to cite** these materials visit http://open.umich.edu/privacy-and-terms-use.

Any **medical information** in this material is intended to inform and educate and is **not a tool for self-diagnosis** or a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional. Please speak to your physician if you have questions about your medical condition.

Viewer discretion is advised: Some medical content is graphic and may not be suitable for all viewers.





### open.michigan Attribution Key

for more information see: http://open.umich.edu/wiki/AttributionPolicy

#### Use + Share + Adapt

{ Content the copyright holder, author, or law permits you to use, share and adapt. }

Public Domain – Government: Works that are produced by the U.S. Government. (17 USC § 105)

Public Domain – Expired: Works that are no longer protected due to an expired copyright term.

Public Domain - Self Dedicated: Works that a copyright holder has dedicated to the public domain.

Creative Commons – Zero Waiver

Creative Commons – Attribution License

© BY-SA Creative Commons – Attribution Share Alike License

Creative Commons – Attribution Noncommercial License

© BYNC-SA Creative Commons – Attribution Noncommercial Share Alike License

**GNU-FDL GNU – Free Documentation License** 

#### Make Your Own Assessment

{ Content Open.Michigan believes can be used, shared, and adapted because it is ineligible for copyright. }

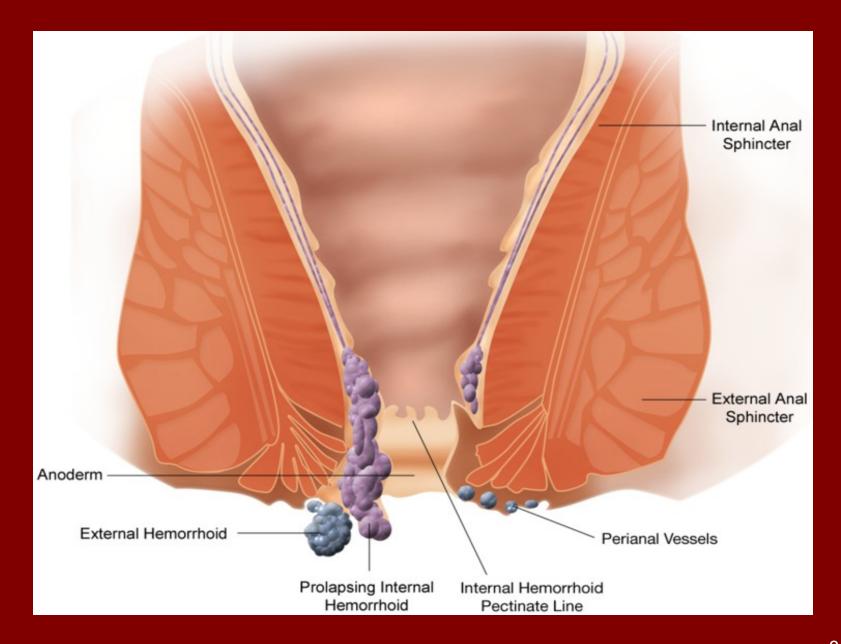
Public Domain – Ineligible: Works that are ineligible for copyright protection in the U.S. (17 USC § 102(b)) \*laws in your jurisdiction may differ

{ Content Open.Michigan has used under a Fair Use determination. }

Fair Use: Use of works that is determined to be Fair consistent with the U.S. Copyright Act. (17 USC § 107) \*laws in your jurisdiction may differ

Our determination **DOES NOT** mean that all uses of this 3rd-party content are Fair Uses and we **DO NOT** guarantee that your use of the content is Fair.

To use this content you should **do your own independent analysis** to determine whether or not your use will be Fair.



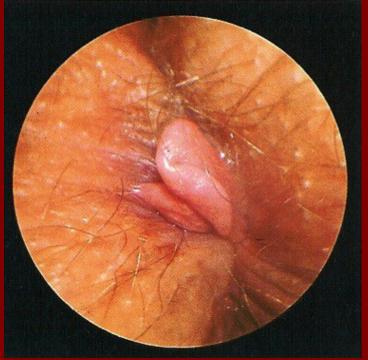
### Hemorrhoids

- Symptoms itching, pain, bleeding, protrusion
- External hemorrhoids asymptomatic unless thrombosed
- Internal hemorrhoids
  - Bleeding typically bright red on stool but not mixed in stool
  - Protrusion soiling / mucus discharge incarcerated/strangulated

## Hemorrhoids

- Pathogenesis
  - Inadequate dietary fiber
  - Prolonged sitting on comode
  - Chronic straining
  - Prolonged sitting (occupational)
  - Medical conditions causing increased venous pressure
    - Pregnancy, ascites, pelvic tumor





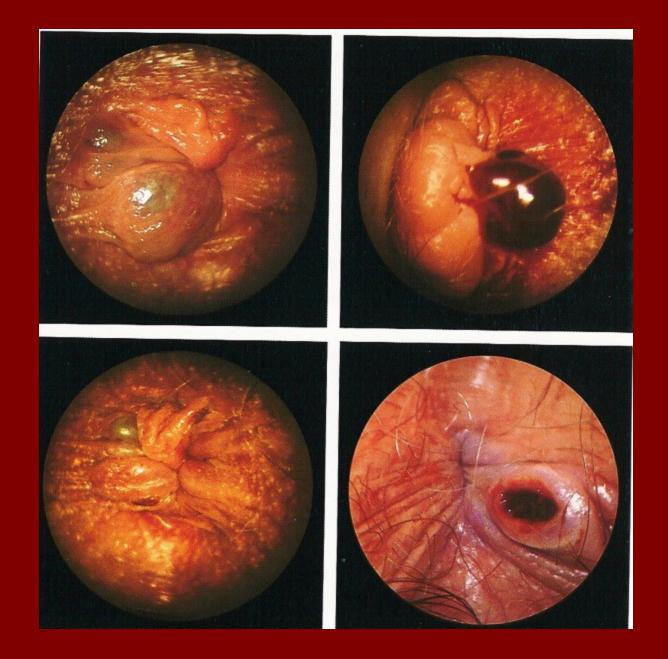




## Thrombosed Hemorrhoids

- External most common
  - Acute onset anal pain
  - Palpable perianal mass

- Internal far less common
  - Pain
  - Pressure
  - Bleeding

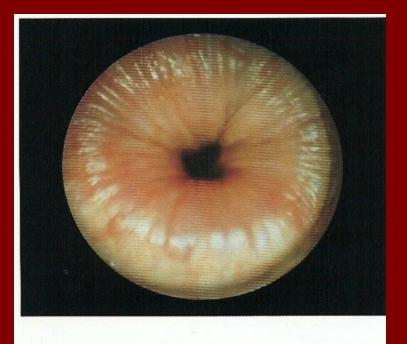


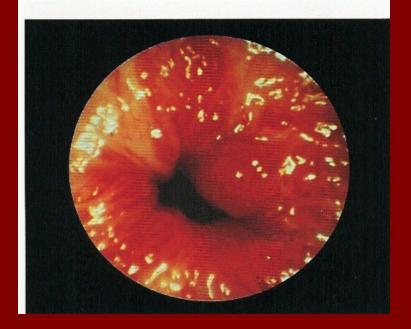


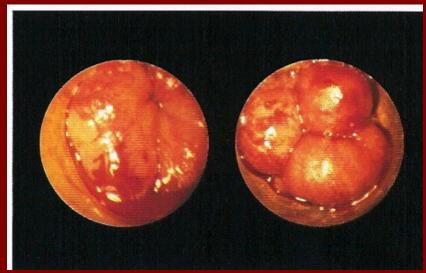




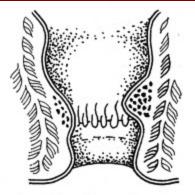








#### FIGURE 100



Hemorrhoid mass prolapsing into the endoscope (first-degree hemorrhoids).



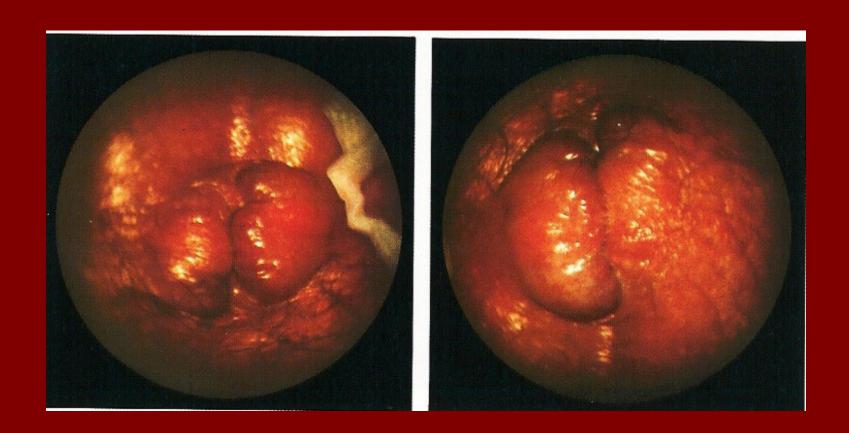
Hemorrhoid prolapsing through the anus, which slides back spontaneously (second-degree hemorrhoids).

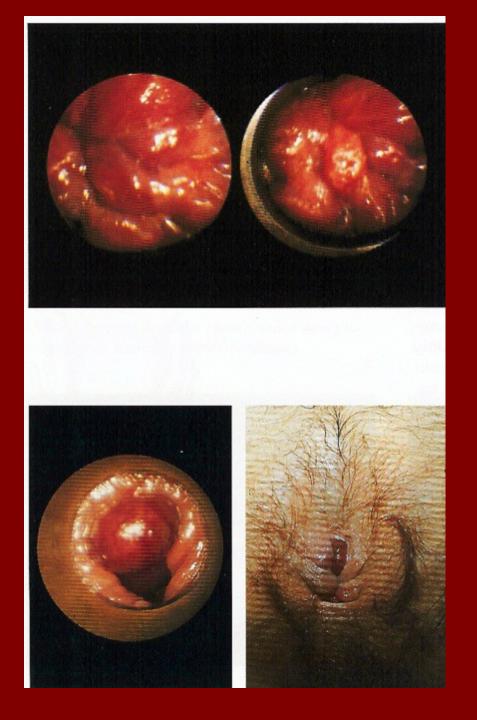


Hemorrhoid that must be replaced manually (third-degree hemorrhoids).

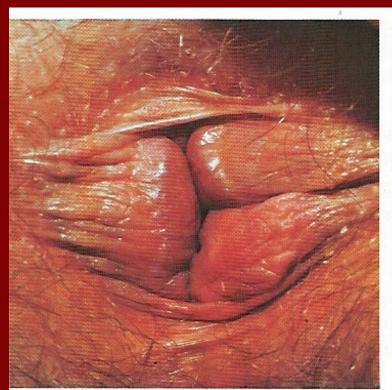


Permanently prolapsed hemorrhoid (fourth-degree hemorrhoids).





PD-INEL

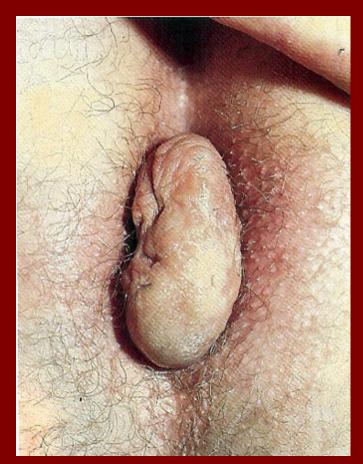












## Hemorrhoids - treatment

- Medical
  - Sitz baths
  - Increased dietary fiber
  - Stool softener
  - OTC topical agents / suppositories
  - Prescription topical agents / suppositories
    - Anusol / Anusol HC

# Hemorrhoids - treatment

### Surgical

- Sclerotherapy (injection of phenol in oil or hypertonic salt solution causing thrombosis of vessels and sclerosis of connective tissue)
- Cryotherapy
- Rubber band technique
- Bipolar diathermy
- Direct-current electrotherapy
- Infrared photocoagulation
- Surgical excision

# Rectal Prolapse (Procedentia)

- Passage (herniation) of a portion or all of rectal mucosa thru external anal sphincter
- Type I false procedentia
  - Partial / mucosal prolapse less than 2 cm long
  - Produces radial folds
- Type II true procedentia
  - Complete / full thickness rectal wall extrusion
  - Extends 2 5 cm
  - Produces circular / concentric folds



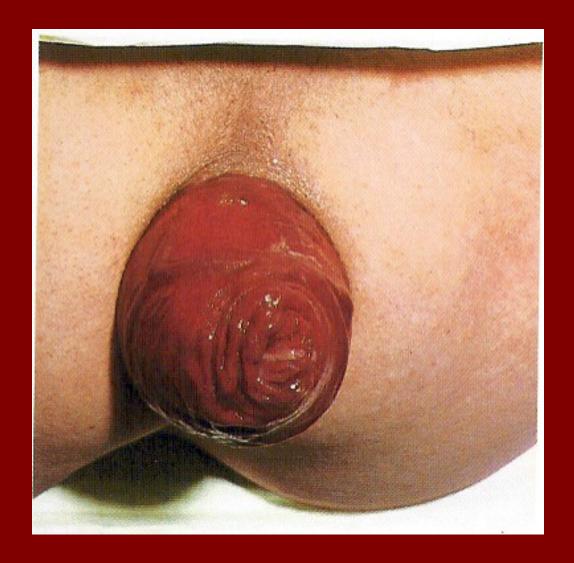
# Rectal Prolapse

- Increased intra-abdominal pressure
  - Chronic constipation, protracted coughing, forceful vomiting
- Diarrheal disease
- Cystic fibrosis
- Malnutrition
- Pelvic floor weakness



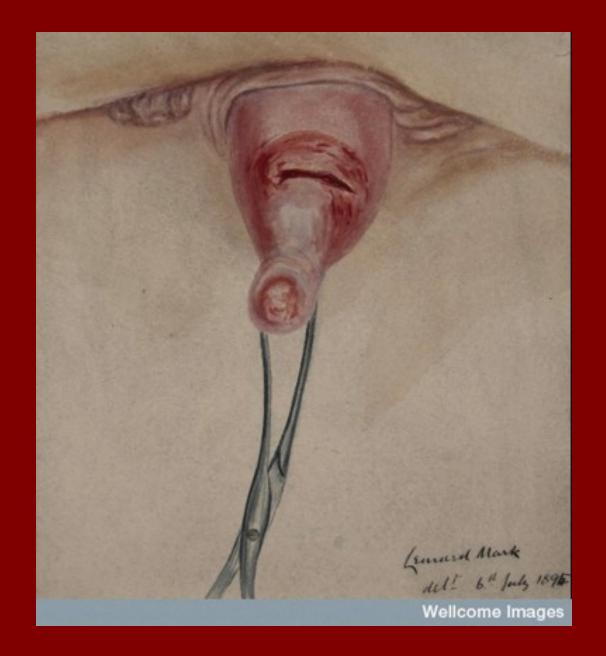






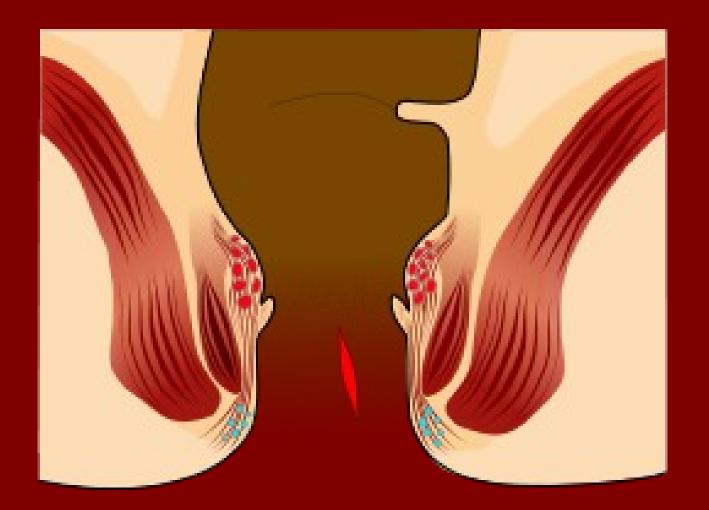
PD-INEL





# Anal Fissure (fissure-in-ano)

- Split in squamous epithelium at or just inside the anal verge (efface anal canal)
- Sharp cutting anal pain with defecation that is relieved in-between defecations
- Sentinel skin tag (sentinel pile) present
- Occurs in midline –posteriorly (90% male and 75% female)
- Predominately noted in young adults



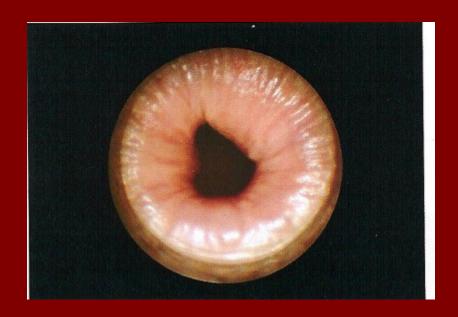


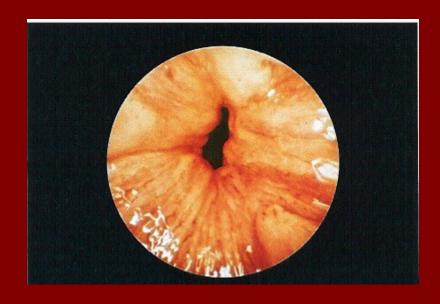
## **Anal Fissure**

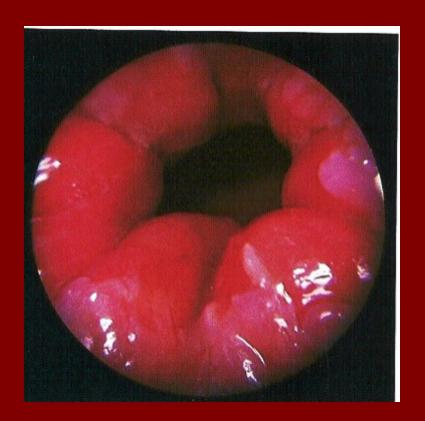
- Treatment
  - Sitz baths
  - Topical analgesics
  - Surgery for chronic lesions or intractable pain
  - Diminish resting anal sphincter pressure
    - Nitroglycerin or calcium channel blocking agents

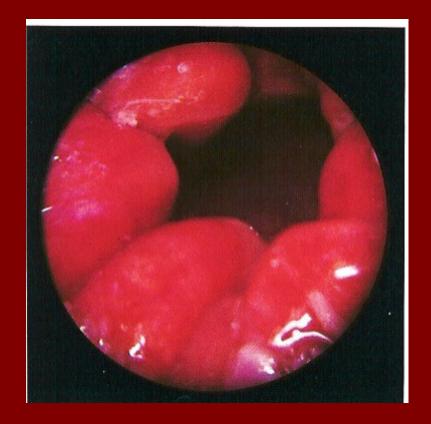
# Cryptitis (Papilitis)

- Inflammation of mucosal lining over crypts (? passage of hard stools)
- Predisposes to inflamation of anal glands leading to abscess formation and possible eventual fistula formation
- Characterized by
  - Anal pain exacerbated with defecation
  - +/- bleeding and/or pruritis
  - Tender swollen crypts on palpation









# Cryptitis

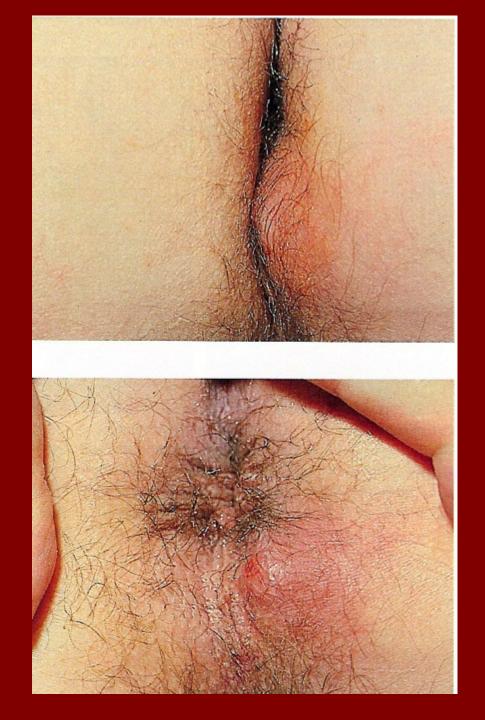
- Treatment
  - Sitz baths
  - Warm rectal irrigation
  - Bulk laxatives
  - Proctofoam HC

#### **Ano-rectal Abscess**

- Originates from infected anal glands at dentate line
- Perianal
- Ischiorectal (buttocks)
- Intersphincteric (fluctuance in lumen)
- Supralevator (CT diagnosis)
- Horseshoe / deep posterior anal space
  - bilateral ischiorectal space abscess







### **Ano-rectal Abscess**

- Symptoms dull aching, throbbing pain worse before defecation and persists between defecations
- Treatment
  - Incision and drainage
  - Antibiotics if
    - Extensive cellulitis
    - Diabetes
    - Valvular heart disease
    - Immunosuppression

### Anal Fistula

- Uncommon in general population
  - Anorectal malignancy
  - Leukemia
  - Radiation proctitis
  - Actinomycosis
  - Lymphogranuloma venereum
  - Inflammatory bowel disease (Crohn's)









## Venereal Proctitis

- Characterized by pruritis, discharge, mild moderate pain or irritation, tenesmus
- Usual etiologies
  - Viral
    - Herpes simplex type 2
    - Human immunodeficiency virus
    - Papillomavirus (condylomata accuminata)
  - Bacterial
    - Neisseria gonorrhea
    - Chlamydia trachomatis
    - Treponema pallidum (condylomata lata –secondary syphillis)

