Anorectal Bleeding

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- Endoscopic examination
Endoscopic examination
- Perianal region
- Anal canal (4-5cm)
- Rectum (10-15cm)

Examination and Evaluation of the Anal Canal and Rectum

Evaluation
- Defecography

Normal Defecography
**Etiologies**

- Hemorrhoids
- Anal fissure
- Fistula
- Post-polypectomy bleeding
- Trauma
- Ulceration (Ischemia, infection, stercoral ulcer, solitary rectal ulcer syndrome)
- IBD
- Chronic radiation proctopathy
- Rectal vascular lesions (varices, angioectasia, hemangioma)
- Neoplasia (adenocarcinoma, squamous cell cancer, melanoma, local invasion)
- Inflammatory polyps
- Endometriosis

**Hemorrhoids**

*External hemorrhoids*
### Hemorrhoids

<table>
<thead>
<tr>
<th>Grade</th>
<th>Goligher grading of internal hemorrhoids</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Hemorrhoids bleed but do not prolapse</td>
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<tr>
<td>II</td>
<td>Prolapse into the anal canal with straining but spontaneously reduce</td>
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<tr>
<td>III</td>
<td>Prolapse into the anal canal, need manual reduction</td>
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<tr>
<td>IV</td>
<td>Prolapsed hemorrhoids, cannot be manually reduced</td>
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</tbody>
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For refractory grade I-III hemorrhoids, non-surgical treatment options:
- Infrared coagulation
- Rubber band ligation
- Diathermy coagulation

### Infrared photocoagulation

- Effective for grade I and II hemorrhoids
- Repeat in 4-6 weeks
- Very safe, recurrence
Diathermy coagulation


Rubber band ligation

- Place 1-3 bands per session, above the dentate line
- Repeat in 4-6 weeks
- Possibility of delayed bleeding (7-10 days)
Post band ligation bleeding

Surgical treatment of hemorrhoids

- Hemorrhoids refractory to non-surgical management
- Significant external hemorrhoids and grade IV internal hemorrhoids

Hemorrhoidectomy, stapled hemorrhoidopexy

Complications: bleeding, abscess formation, anal fissure, stenosis, fecal incontinence
A tear in the anoderm, distal to the dentate line
- Typical fissure: posterior midline (90%)
- Etiology:
  - Forceful dilation of the anal canal
  - Disruption of the anoderm
  - Reactive spasm of the internal sphincter muscle
Treatment of anal fissure

- Fiber suppl., stool softners, sitz bath

- Topical anesthetics may provide pain relief, no proven effect on healing

- Proven non-surgical therapy:
  - Topical nitroglycerin (0.2-0.3%)
  - Topical diltiazem (2%)
  - Topical nifedipine (0.3%)
  - Botulinum toxin injection
Chronic radiation proctopathy

- 9 months to 30 years after radiation
- Treatment in symptomatic patients
  - Argon plasma coagulation
  - Thermal coagulation: bipolar, radiofrequency
  - Cryotherapy
  - Endoscopic application of diluted formalin
- 5-ASA and short-chain fatty acid enemas are ineffective

Rectal ischemia (Ischemic proctitis)

- Uncommon involved with ischemic colitis (2-5%)
- Aortoiliac surgery or angioembolization with disruption of the collateral to the rectum
Focal mucosal ischemia, erythema, and ulcerations (<1/3)

Previously called mucosal prolapse syndrome

Etiology:
- Pelvic floor dys-synergia
- Constipation and straining
- Mucosal prolapse

Defecography: Interssusception and non-relaxing puborectalis

Treatment for symptomatic patients:
- Patient education, avoid excessive straining
- Fiber intake and bulk forming agent
- Bio feedback
- 5-ASA enema?

Surgery is reserved for persistent bleeding and/or significant prolapse
**Rectal stercoral ulcer**
- Ischemic ulceration by hard stool
- Biopsy and address constipation

**Endometriosis**
- Mostly at the rectosigmoid
- Easily missed
- Biopsy and surgery referral
Other rectal vascular lesions

Rectal Dieulafoy's lesion, varices, and hemangioma

Rectal ulceration after brachytherapy
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