AAST Acute Care Surgery Didactic Curriculum

Anorectal Disease

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Fissures

Highlights:

- Acute anal fissures (<6wks) are likely to resolve with sitz baths and psyllium use. Topical analgesics are recommended over systemic pain medication. Do not attempt manual dilation of the anal sphincter.
- Atypical fissures (lateral location or multiple) warrant further consideration for inflammatory bowel disease, anal or colorectal cancer, or occult perianal sepsis.
- Topical nitrates, calcium channel blockers, and botulinum toxin injections have similar efficacy (~50%) as first line treatment for chronic anal fissures.
- Surgery should be reserved for patients non-responsive to at least 8 weeks of therapy. When performing lateral internal sphincterotomy, the incision should be tailored to the length of the fissure.

Hemorrhoids and bleeding anorectal varices

Highlights:

- Manage hemorrhoid symptoms and progression with hydration, fiber supplements, and healthy defecation habits.
- Rubber band ligation is the most effective in-office treatment (limited to internal hemorrhoids).
- Thrombosed external hemorrhoids can be excised (NOT I&D) in the first 48 hours for severe pain, but there is no surgical benefit at later times.
- For large or complex hemorrhoids, surgical excision or stapled hemorrhoidopexy can be offered. Excisional hemorrhoidectomy has lower recurrence.
- Bleeding per rectum with suspected bleeding hemorrhoids should be evaluated with digital rectal exam, anoscopy, and ideally colonoscopy to rule out other sources of lower GI bleed.
- Bleeding anorectal varices are best diagnosed with endoscopy. Local procedures should first be attempted to stop bleeding from varices: band ligation, sclerotherapy, or EUS-guided glue injection, followed by radiological embolization.
- No specific surgical approach is recommended for bleeding hemorrhoids or bleeding varices, but consensus recommends *against* per anal suture ligation.

Pilonidal cysts

Highlights:

- Infected pilonidal cysts should be incised and drained, which can often be accomplished under local anesthetic at bedside. Antibiotics are only indicated for signs of cellulitis. Delay cyst excision until after the infection resolves.
- Pilonidal disease is reduced by elimination of gluteal cleft hair. Persistent disease is treated with full excision of the cyst and tract. Primary repair after surgical excision is associated with faster healing times but has a higher recurrence rate versus healing by secondary intention.

Perianal abscesses, fistulas, and Fournier's gangrene

Highlights:

- Perianal abscesses do not require imaging if clinically apparent, but CT scan helps identify complex disease that may not be detected on exam. An exam concerning for Fournier's gangrene warrants prompt surgical debridement, and OR should not be delayed to obtain CT imaging.
- Abscesses may be amenable to bedside drainage, but they often require general anesthesia for adequate drainage. The incision should be as close to the anal verge as possible, and there is no routine requirement for wound packing.
- No active attempt should be made to find an associated anal fistula at the initial abscess presentation. If an obvious fistula can be identified without probing, the fistula should either be opened (low, no sphincter involvement) or a loose draining seton should be inserted.
- Seton placement in anal fistulas facilitates resolution of inflammation prior to surgical management. Surgical technique is dictated by involvement of the sphincter muscles: lay-open fistulotomy for minimal or no sphincter involvement, LIFT procedure for trans-sphincteric fistulae, or endorectal advancement flap for internal fistula openings above the dentate line.
- Antibiotics are indicated for patients with cellulitis, systemic infection, or immunosuppression. Broad spectrum empiric coverage should be started for suspected or diagnosed Fournier's gangrene.
- Fournier's debridement should focus on removal of all necrotic tissue with preservation of critical structures. Send tissue for culture to guide antibiotic therapy. Plan for serial debridements. Reconstruction may require a multidisciplinary surgical team.

Special Considerations for Crohn's Disease

Highlights:

- Anorectal disease is often the primary manifestation of Crohn's disease (CD).
- A digital rectal exam should be performed at the time of abscess drainage to assess for signs of proctitis.

- CD fistula management without proctitis begins with antibiotics and immunomodulators, advances to draining seton placement, then surgical fistula treatment. Fecal diversion may be needed for severe disease.
- Stem cell therapies are emerging as an effective treatment for fistulas in patients with CD.

Rectal Prolapse

Highlights:

- Prolapse without signs of ischemia or perforation should be reduced with gentle circumferential pressure. The surgical approach can be tailored to the patient's fitness for abdominal surgery and the surgeon's skills.
- Surgical management of rectal prolapse is more effective via an abdominal approach. Rectopexy should be performed with or without sigmoid resection. Patients who cannot tolerate an abdominal surgery can have mucosal or rectal excision via a perineal approach.
- Prolapse with ischemia, perforation, peritonitis, or hemodynamic instability warrants antibiotics and an open abdominal surgery. The decision for anastomosis, with or without diversion, or end colostomy should be based on the patient's condition and risk factors for anastomotic leak.

Rectal Foreign Bodies

Highlights:

- For suspected rectal foreign body, obtain lateral and AP abdominal X-ray prior to digital rectal exam to avoid injury to the examiner. If perforation is suspected but the patient is hemodynamically appropriate, obtain a CT scan to evaluate.
- If no suspicion for perforation and hemodynamically appropriate, bedside extraction can be attempted for low rectal objects and endoscopic extraction can be attempted for high-lying objects. Nerve blocks and sedation may facilitate extraction. If drugs are suspected, any maneuver that may disrupt the package is contraindicated.
- Surgery is indicated for obvious perforation, hemodynamic instability, or failure of non-surgical extraction. Attempt operative "milking" of foreign body prior to performing colotomy. Repair small colotomies primarily. Diversion may be necessary for extensive contamination or hemodynamic instability.