AAST Acute Care Surgery Didactic Curriculum

Inflammatory Bowel Disease

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Guidelines for Non-Urgent Setting:

Highlights:

- Mainstay treatments of IBD in typical order of escalation are 5-ASA, corticosteroids, immunomodulators, and biologics. New therapies with apheresis, stem cells, and microbiome support or replacement offer ongoing hope of disease remission.
- Endoscopy in IBD patients should be conducted in times of clinical remission and include random biopsies. Chromoendoscopy or high-definition white-light endoscopy is typically recommended for optimal surveillance.
- Colitis increases risk of colorectal cancer 2-3x above the general population. Cancer screening colonoscopy should begin 8 years after diagnosis of UC or CD. If the patient has concomitant primary sclerosing cholangitis, screening should start at diagnosis of PSC.
- Endoscopic dilation may be considered for patients with short-segment, noninflammatory, symptomatic small-bowel or anastomotic strictures
- In a patient with Crohn's disease, intra-abdominal abscesses that are > 3 centimeters, in a hemodynamically normal patient, should be managed with percutaneous drainage and empiric antibiotics that are subsequently tailored to microbial culture results. Intra-abdominal abscesses <3 cm are primarily treated by IV antibiotics.
- A minimally invasive approach is recommended for surgery in CD, if possible, for the problem being addressed.

Guidelines for Urgent/Emergent Setting:

Highlights:

- Work-up of a patient with inflammatory bowel disease presenting with acute abdominal pain should include a CBC, CMP, ESR, CRP, and fecal calprotectin. Stool cultures and a C. difficile toxin test should be sent to rule out infectious etiologies. CT with IV contrast should be completed to look for perforation, stenosis, abscess, and bleeding. If active bleeding is suspected, obtain CT angiography.
- Routine administration of antibiotics in IBD patients is not recommended. Antibiotic administration is only recommended in the presence of super infection, intra-abdominal abscesses, and sepsis.

- Venous thromboembolism prophylaxis should be initiated as soon as possible given the high risk of thrombotic events related to acute, complicated inflammatory bowel disease.
- Management of a patient with inflammatory bowel disease presenting with acute abdominal pain, if hemodynamically appropriate or resuscitation responsive, is medical therapy and a multidisciplinary team.
- Indications for emergency surgery in patients with inflammatory bowel disease presenting with acute abdominal pain include hemodynamic instability (not responsive to resuscitation), acute severe ulcerative colitis, toxic megacolon, uncontrolled gastrointestinal bleeding, perforation/ pneumoperitoneum, and intestinal obstruction (small bowel and large bowel due to strictures).

Surgical management recommendations:

1. In all IBD patients:
    a. Steroids should be weaned off and immune modulators stopped as soon as possible before surgery to minimize the risk of postoperative complications.
    b. Nutritional support in the form of parenteral or enteral nutrition should be initiated as soon as possible.

2. In the patient with ulcerative colitis:
    a. Indications for surgical management include: hemodynamic instability, disease refractory to medical management, massive hemorrhage, toxic megacolon, progressive colonic dilation, and perforation. The surgery of choice is a subtotal colectomy with end ileostomy. Consideration for proctocolectomy with or without IPAA is delayed (months) until the patient is well.
    b. In the UC patient with high grade dysplasia or colon cancer on biopsy, the surgery of choice is a total proctocolectomy.

3. In the patient with Crohn's disease:
    a. Minimally invasive surgery is preferred if the patient is hemodynamically stable and the problem can be appropriately managed laparoscopically. For example, adhesiolysis and bowel resection for intestinal obstruction or for contained/minimal bowel perforation.
    b. Bleeding in the hemodynamically stable patient should be managed with endoscopic measures. Surgical exploration should be reserved for those that have failed non-operative management or become hemodynamically unstable. The recommended surgical approach is open, to reduce operative time.
    c. Intestinal perforation in the hemodynamically unstable patient should be managed with a damage control laparotomy, ICU resuscitation, and a planned second-look operation with consideration for stoma versus anastomosis.
    d. Crohn's colitis subtotal colectomy and ileostomy is the emergency operation of choice for severe acute and refractory colitis.

4. Anastomotic considerations in patients with Crohn's disease:
    a. If a patient is hemodynamically unstable and has two or more risk factors for complications, an ileostomy is warranted. Risk factors for anastomotic complication: sepsis, widespread peritoneal contamination, malnutrition, immunosuppression, recent anti-TNF treatment, and fistulizing/perforating disease.
    b. If a patient is hemodynamically appropriate and does not have two or more of the above risk factors, primary anastomosis rather than ostomy is warranted.
    c. Hand-sewn versus stapled anastomosis are equivocal in terms of complications rate and recurrence. Therefore, the technique undertaken is left to the discretion and level of comfort of the operating surgeon.