NYU Langone Health

Surgical Considerations in IBD

Surgery does NOT represent a medical failure, rather it is one of the treatment options.

Risk of Requiring Surgery for IBD Management

Crohn's disease

- 1 year: 16.3%
- 5 years: 33.3%
- 10 years: 46.6%
- Cumulative: up to 70%-90% in some reports

Ulcerative colitis

- Cumulative risk of surgery over 25%

Frolkis AD et al. *Gastroenterology* 2013;145(5):996-1006.
Nguyen GC et al. *Gastroenterology* 2011;141(1):90-97.
Bouguen G, Peyrin-Biroulet L. *Gut* 2011;60(9):1178-1181.
Turner D et al. *Clin Gastroenterol Hepatol* 2007;5(1):103-110.

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Crohn’s Disease Surgeries

Indications for Surgery

- Persisting or recurrent obstruction
- Abscess
- Cancer
- Hemorrhage
- Bowel perforation
- Poor quality of life

Travis SP et al. *Gut* 2006;55(suppl 1):i16-i35.

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Crohn’s Disease Surgery

- Most common indication is for fibrostenotic disease segment
- Second most common indication is penetrating disease resulting in abscess or phlegmon usually in:
  - Presence of fistula
  - Presence of sinus

Lichtenstein GR et al. *Am J Gastroenterol* 2018;113(4):481-517.

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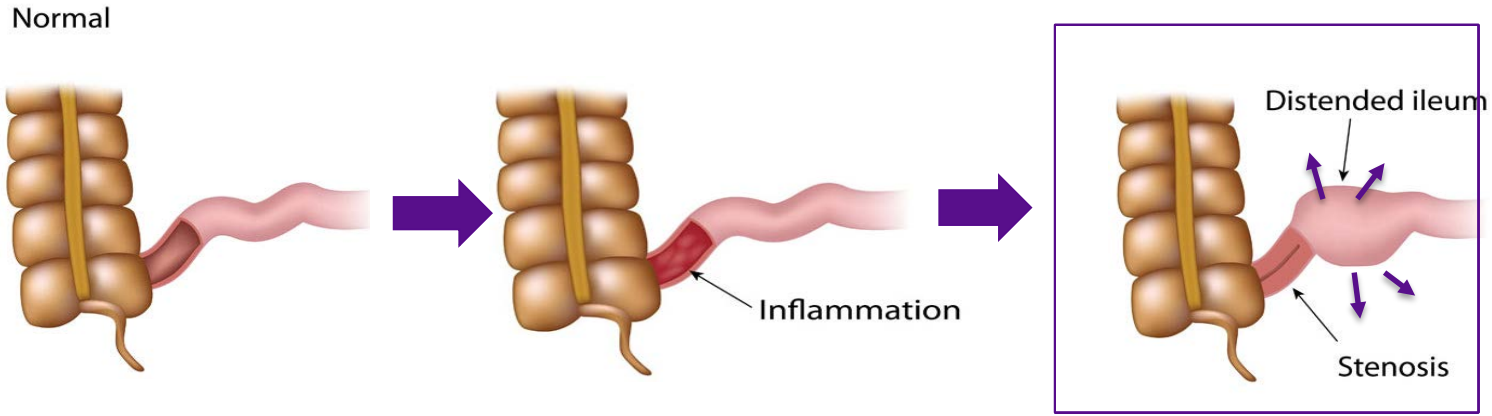
Stricturing Disease

- Approximately 19%-38% of patients with Crohn's disease have stricturing or penetrating disease at the time of diagnosis
- 61%-88% will develop stricturing or penetrating disease after 20 years of disease



Louis E. *Dig Dis* 2012;30(4):376-379.

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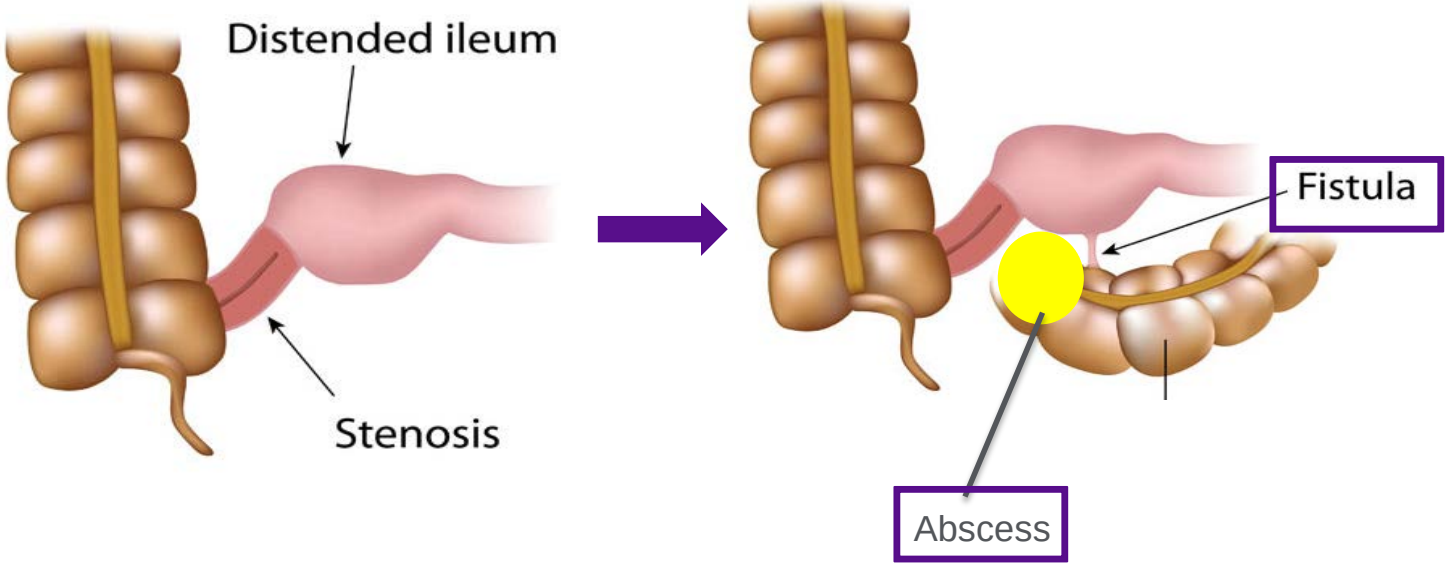
Considerations for Surgery in Stricturing Crohn's Disease

- Long stricture (> 4cm)
- Multiple strictures
- Strictures with associated abscesses or fistulae
- Suspicion of cancer as cause of blockage
- Surgical options:
  - Resection
  - Stricturoplasty
    - "Bowel-sparing" as it does not result in resection, but rather in reconfiguring the bowel to relieve a physical obstruction
    - Technique and reconfiguration depend on the length of the stricture and number of strictures to managed

Fistulas and Abscesses in Crohn's Disease



Management of Abscesses in Crohn's Disease

- Surgery is not always indicated
- Antibiotics should **always** be given
  - Abscesses < 3cm may be treated with antibiotics alone
- If possible, abscesses should be drained by interventional radiology
- Once abscess is drained biologics can be initiated
- Most patients who develop an abscess will need to undergo (delayed) resection
- Untreated abscess and phlegmon prior to surgery are associated with sepsis, leaks, and mortality postoperatively
- Long-term abscess resolution without surgery is unlikely (OR 3.44)

Patel KV et al. *Nat Rev Gastroenterol Hepatol* 2016;13(12):707-719.
Nguyen DL et al. *Eur J Gastroenterol Hepatol* 2015;27(3):235-241.
Kim Dh et al. *Korean J Gastroenterol* 2009; 53:29-35.

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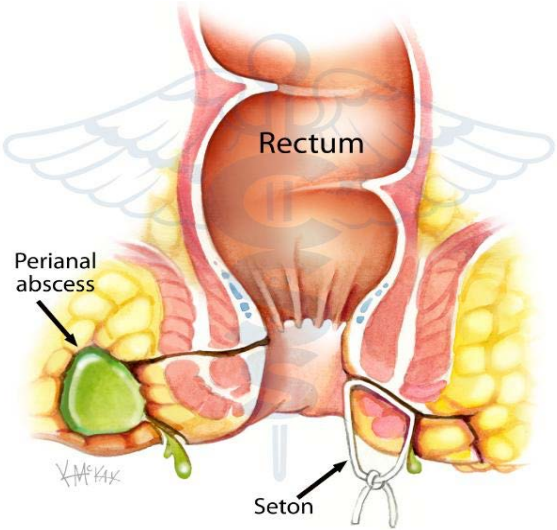
Perianal Fistulas and Abscesses

- Seen in approximately 25%-33% of patients with Crohn's disease; most common fistula site
- Best evaluated with MRI of the pelvis
- Combined medical and surgical approach improves outcomes
- Exam under anesthesia with seton placement in the setting of abscesses, followed by initiation of anti-TNF medications
- Diverting colostomy in refractory cases



Lichtenstein GR et al. *Am J Gastroenterol* 2018;113(4):481-517.

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Crohn's Disease and Colorectal Cancer

- Increased risk of colon cancer in Crohn's disease, based on time since Crohn's disease diagnosis and extent of disease
- Relative risk is 2.5 in CD and 5.6 in colonic CD
- Surveillance is recommended after 8 years of disease if > 30% of the colon is involved
- Slight increased risk of small intestinal cancer in Crohn's disease with small intestinal involvement
  - 0.5/1000 person-years after 8 years
  - No surveillance recommended for this group

Beaugerie L, Itzkowitz SH. *N Engl J Med* 2015;372(15):1441-1452.
Huang LC, Merchea A. *Surg Clin North Am* 2017;97(3):627-639.

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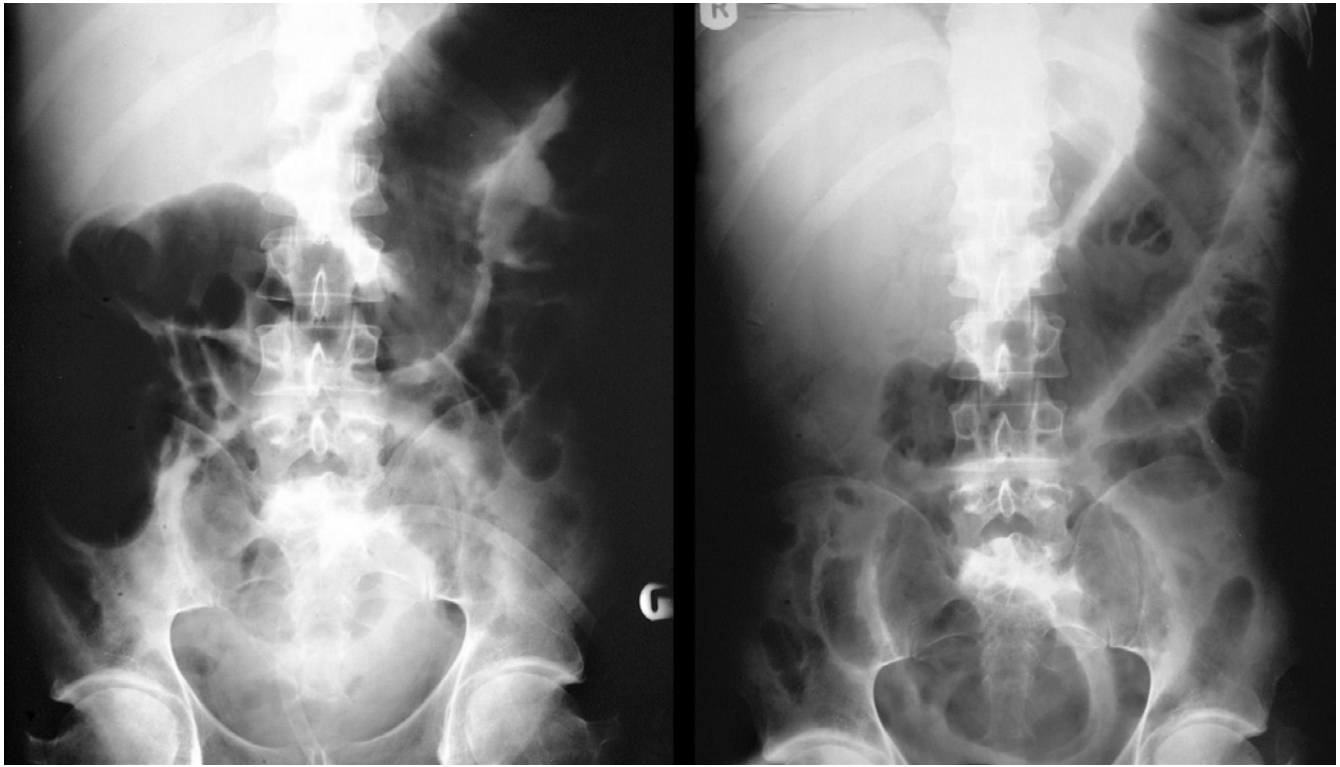
Ulcerative Colitis Surgeries

Indications for Surgery in Ulcerative Colitis

- Acute severe ulcerative colitis (ASUC)
  - Toxic megacolon
  - Perforation
  - Massive bleeding
  - Refractory to or intolerant of medical therapies

- Cancer

Toxic Megacolon



Toxic Megacolon

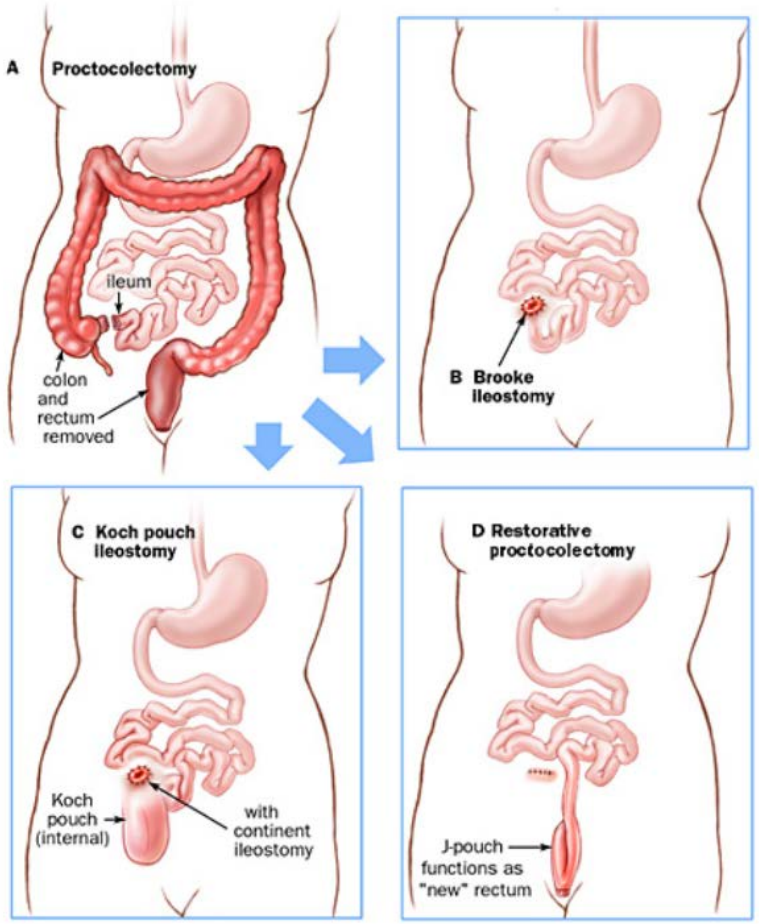
But…

Don’t have to have radiologic evidence to have toxic megacolon or to require surgery

Surgery in the Urgent Setting

- Subtotal colectomy is the preferred surgery with end ileostomy and Hartmann's pouch creation
- Rectal mucosectomy and ileoanal pull-through are deferred until the patient is optimized
  - Nutritional status
  - Off steroids
  - Center of Excellence

Ulcerative Colitis Surgical Options



Ileal Pouch Anal Anastomosis (IPAA)

- Most common surgery performed to restore bowel function in UC
- Important to set the patients expectations prior to surgery:
  - Usually have 4-8 bms/day
  - Likely to have nocturnal BMs
  - Many experience incontinence that increases over time
- Most will have a 3-stage set of surgeries
  1. Subtotal colectomy
  2. Rectal mucosectomy and pouch creation with diverting loop ileostomy (DLI)
  3. Takedown of DLI

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Ulcerative Colitis and Colon Cancer

- Increased risk of colon cancer, based on time since ulcerative colitis diagnosis, extent of disease, and disease severity
- Standardized incidence ratio 7 compared to the general population
  - Surveillance is recommended after 8-10 years of disease
  - Surveillance can start after 10-15 years of disease in limited left-sided disease

Beaugerie L, Itzkowitz SH. *N Engl J Med* 2015;372(15):1441-1452.
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