

# Crohn's Disease

## General

- AKA regional enteritis
- immune-mediated
- can affect anywhere in GI tract from mouth (only 5-15%), 80% small bowel involvement, 50% both colon and ileum "ileocolitis," colon only 20% to anus 30%

## Epidemiology

- 5 per 100,000
- 25% less than 18 years old

## Risk factors

- gene mutations predispose patients to inflammatory response against "intraluminal antigens," which can be intestinal bacteria dietary antigens and environmental antigens like smoke
- genetic and environmental component

**Symptoms:** patients may have symptoms for many years before diagnosis

- Abdominal pain: crampy usually from fibrotic strictures which can lead to partial or complete obstructions. May also present with RLQ pain (pain of distal ileum)
- Constipation from narrowing of lumen and early sign of obstruction
- Weight loss : from malabsorption
- Diarrhea from impaired fluid absorption because of inflamed sick bowel, inability to reabsorb bile salts because of ileal disease, steatorrhea because of the loss of these bile salts
- Bleeding: hematochezia is 60% in children, but may be occult (fobt +) in adults, gross bleeding is usually because of colitis and is thus more rare than bleeding seen in ulcerative colitis
- Fistulas :-/ occur because of transmural sinus tracts, does not present with an acute abdomen, enterovesical (frequent UTI), enterocutaneous, enteroenteric (palpable mass) or enterovaginal (gas or feces through the vagina), up to 45% of people will develop a fistula before diagnosis of chron's, may simply lead to abscess formation!!
- Perianal disease: pain, discharge, anal fissures, perirectal abscesses, anorectal fistulas
- Growth failure in children (30 percent)
- Fatigue
- fever

Don't forget ROS

- aphthous ulcers
- odynophagia and dysphagia from esophageal involvement
- gallstones from decreased bile acid to cholesterol ratio
- eye pain (uveitis)
- skin: erythema nodosum and pyoderma gangrenosum
- Joint problems: arthritis in 20% of patients may be associated with sacroiliitis or ankylosing spondylitis

## Diagnosis

CBC, Vitamin B12, Iron studies

## ESR/CRP

Signs and Symptoms that require a colonoscopy for further work up include: Weight loss, multiple episodes of diarrhea a day, including night time awakening to stool, overt bleeding is less common in Chron's than UC, and unexplained elevation in ESR/CRP

Endoscopy: ulceration, granuloma formation (30%), acute and chronic inflammation

while UC will be continuous from rectum proximally, chron's show 's skip lesions that will be interspersed with normal appearing bowel.

## Treatment and follow-up

### Outpatient treatment

-top down approach vs step up approach. Top down means starting with the most potent (least studied and significant risk of side-effects) and bottom up approach means starting with the most studied and oldest regimen but less likely to put patient into remission.

-top down: this is the approach used at CCRMC start with TNF inhibitors (here we use remicade: infliximab) These are more likely to induce remission than step up approach however they are less studied and may cause very rare but significant side effects such as hepatosplenic t cell lymphoma

-step up: starting with either 5-ASA or mesalamine, antibiotics and glucocorticoids (budesonide or prednisone) may be required in patients with symptoms refractory to 5-ASA, mesalamine or budesonide

Preventative measures: anti-diarrheal medications, avoiding lactose and probiotics

Inpatient treatment for abscesses include cessation of immunosuppressive agents (given active infection.) Abscesses can be treated least invasively with antibiotics (cipro and flagyl), more invasively with IR drainage (risk of perforating an internal organ) and most invasively with surgical drainage and bowel resection (avoided unless necessary)

### References:

Uptodate: Chron's disease diagnosis, management

D'Haens G, Baert F, van Assche G, et al. Early combined immunosuppression or conventional management in patients with newly diagnosed Crohn's disease: an open randomised trial. Lancet 2008; 371:660.

Sandborn WJ, Feagan BG, Lichtenstein GR. Medical management of mild to moderate Crohn's disease: evidence-based treatment algorithms for induction and maintenance of remission. Aliment Pharmacol Ther 2007; 26:987.