SDL – Inflammatory Bowel Disease

Color Index	IMPORTANT	NOTES	GOLD	EXTRA

OBJECTIVES

- Recognize the Epidemiology of Inflammatory bowel disease
- Define the types of Inflammatory bowel disease (UC and Crohn's diseases)
- Understand the presentation and diagnosis
- Explain the role of family physician in management of Inflammatory bowel disease and its update
- Define the complications related to IBD

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Sources	

Epidemiology:

IBD is more common in the West, but the incidence is increasing in the developing countries including Saudi Arabia.

Incidence of IBD has two peaks: 14 -24 years and a second peak 50-70

Ulcerative colitis vs Chron's Disease:

	Ulcerative colitis	Chron's
inflammation	Continuous, mucosa +- submucosa	Patchy skip area, transmural
Location	Only colon (Start rectum then extend proximally)	All GIT (most commonly ileocolic)

Presentation of Inflammatory Bowel Disease:

Ulcerative Colitis Presentation

- Rectal bleeding (more risk of anemia)
- Urgency
- diarrhea (frequent and small amounts, mucus)
- Tenesmus
- abdominal pain (less severe compared to Chron's)
- systemic symptoms: fever, nausea, vomiting, weight loss

Chron's Disease Presentation

- Abdominal pain (intermittent and colicky)
- Diarrhea (late manifestation)
- Rectal bleeding
- Systemic Symptoms: Fatigue, Fever, Weight loss

Involvement of:
Mouth: aphthous ulcers.
Esophagus: odynophagia and dysphagia.
Stomach/ duodenum: upper abdominal pain and symptoms of gastric outlet obstruction.
Ileum: inflammation of ileum impaired ability to absorb bile salts. The bile salts bind to cholesterol and make it water soluble. Without enough bile salts, cholesterol can collect in the gallbladder to form **gallstones**

Extra-intestinal Manifestations of IBD

- Rheumatological: Arthritis, Ankylosing spondylitis
- Dermatological: Erythema nodosum, Pyoderma gangrenosum, Psoriasis
- Ophthalmologic: Anterior Uveitis, Episcleritis, Scleritis
- Hepatobiliary: Cholelithiasis, Primary Sclerosing Cholangitis
- Nephrological: Nephrolithiasis
- Vascular/ Hematologic: Venous thromboembolism, Anemia

Note: Cholelithiasis is specific only to Crohn's disease.

Diagnosis of Inflammatory Bowel Disease:

No single modality is enough for Diagnosing Inflammatory Bowel Disease

Diagnosis of Ulcerative Colitis

Serologic markers

- Inflammatory markers: ESR, CRP
- Antibody tests: Antineutrophil cytoplasmic antibodies (pANCA)+
- Stool markers: fecal calprotectin and lactoferrin. fecal calprotectin indicates inflammation (can differentiate between IBS and IBD)

Colonoscopy:
lost vascular markings, petechiae, exudates, touch friability, and frank hemorrhage may be present, continuous. **Pathology** shows crypt abscesses, branching of crypts, atrophy of gland loss of mucin in goblet cells

Imaging:
Barium enema showing lead pipe appearance

Diagnosis of Crohn's Disease:

Serologic markers

- Inflammatory marker: ESR, CRP
- Antibody tests (Anti-Saccharomyces cerevisiae antibodies (ASCA)
- Stool markers: fecal calprotectin, lactoferrin

Colonoscopy and Endoscopy:

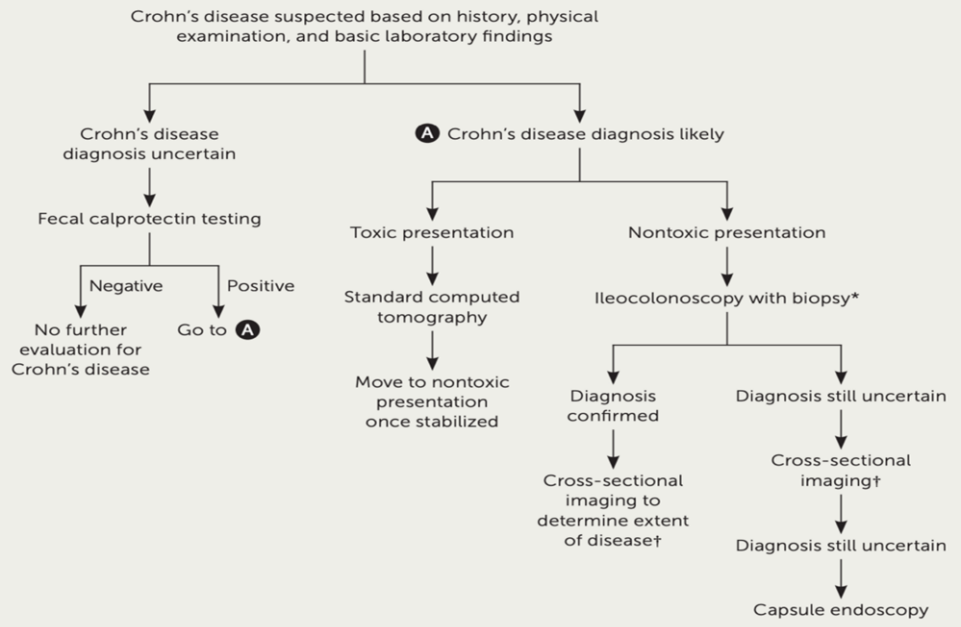
- **Colonoscopy:** shows Cobble stone appearance (focal ulcerations adjacent to areas of normal appearing mucosa along with polypoid mucosal changes). Pathology shows non caseating granulomas
- **Wireless capsule endoscopy** (to see small intestines) Wireless capsule endoscopy: takes 1 image every second for 8 hours, before testing check the absence of strictures.

Imaging studies:

Imaging can show creeping fat

- Best imaging for Chron's is MRI/ MR enterography
- small bowel follow through (SBFT)
- computed tomography: CTS or CT enterography

FIGURE 1



Algorithm for diagnosing Crohn's disease.

*—Esophagogastroduodenoscopy may be considered, especially for children and/or in the presence of upper gastrointestinal symptoms.
†—Choice of cross-sectional imaging technique depends on several factors. Refer to Table 6 for details.
Information from references 1, 2, 13, 14, 18, 19, and 21.

If the patient has a toxic presentation:
standard CT should be the first test.

If the patient does not have a fulminant presentation:
ileocolonoscopy with biopsy should be the first test.
Cross-sectional imaging should follow so that the full extent of disease seen by endoscopy can be determined or to identify disease not visualized by endoscopy.
When ileocolonoscopy and cross-sectional imaging are negative and concern for Crohn's disease is still high, **capsule endoscopy** would be the next step.
If this study is negative, it is moderately certain that the disease is not present

Complications of IBD:

Ulcerative Colitis Complications:

- Perforation/ Hemorrhage
- Colon cancer General risk for total population: 6% by 60
- Toxic megacolon (transverse colon with a diameter of more than 5,0 cm to 6,0 cm with loss of haustration)

Chron's Disease Complications:

- Perforation/ hemorrhage
- Colon cancer
- Phlegmon/abscess
- Fistulas: Enterovesical, enterovaginal, Enterocutaneous, Enteroenteric
- Perianal disease (abscess, fistula, skin tags) almost exclusive to Crohn's

Role of Family Physician in The Management of IBD:

Ulcerative Colitis Treatment:

5 ASA therapy (useful in Induction and maintenance of remission)
Proctitis: rectal 5ASA
Proctosigmoiditis or more: combine rectal and oral 5ASA

Corticosteroids (induction but not maintenance)

- Systemic: Prednisolone
- Local acting: enema/ Budesonide MMX new steroid drug

Immunomodulators (Maintenance but not induction)

- Thiopurine: Azathioprine (Imuran) and 6-mercaotopurine
- Methotrexate

Anti TNF therapy

When to Refer for Surgery? Surgery: total colectomy; curative

- fail to respond to medical therapy.
- Dysplasia or carcinoma.
- Complications (perforation, acute dilatation).
- Chronic continuous disease with an impaired quality of life.

Crohn's Disease Treatment:

5asa has no role in management of Crohn's

Corticosteroids (induction but not maintenance)
Systemic: Prednisolone
Local acting: Budesonide.

When disease is diffuse or located in the left colon, prednisone is preferred; however, formulations of controlled ileal-release budesonide (Entocort EC) are an option for disease affecting the ileum and/or proximal colon and may be preferred because of their unique delivery specifically to that area.

Immunomodulators
Thiopurine: Azathioprine (Imuran) and 6-mercaotopurine
Thiopurines are no more effective than placebo in inducing remission, and therefore, have limited use as monotherapy.
azathioprine combined with anti–tumor necrosis factor (TNF) agents, such as infliximab (Remicade), demonstrated improved effectiveness over either agent used alone.
This combination decreases corticosteroid exposure, resulting in fewer adverse effects

Methotrexate
Based on more limited evidence, methotrexate may also be used for induction or maintenance of remission; however, time to clinical response should be considered.

Anti TNF therapy (induction and maintenance)**:**
Anti-TNF agents, such as infliximab, induce and maintain remission in moderate- to high-risk patients, or in patients with inadequate response to corticosteroids and immunomodulators.

All monoclonal antibodies increase the risk of certain cancers and infections, including reactivation of tuberculosis.

When to Refer for Surgery? Surgery: conservative; palliative

- Fail to respond to medical therapy
- Dysplasia or carcinoma.
- Difficult fistulas
- Major bleeding
- Severe perianal disease
- Severe disability

https://www.aafp.org/afp/2013/0515/p699.html#sec-4

https://sci-hub.tw/https://www.aafp.org/afp/2018/1201/p661.html