
Inflammatory Bowel Disease

There are two forms of idiopathic inflammatory bowel disease (IBD):

- ulcerative colitis, a mucosal inflammatory condition confined to the rectum and colon, and Crohn's disease, a transmural inflammation of GI mucosa that may occur in any part of the GI tract.

- The etiologies of both conditions are unknown, but they may have a common pathogenetic mechanism.

- The major theories of the cause of IBD involve a combination of infectious, genetic, and immunologic causes.

- The inflammatory response with IBD may indicate abnormal regulation of the normal immune response or an autoimmune reaction to self-antigens.

- Microflora of the GI tract may provide a trigger to activate inflammation.

- Crohn's disease may involve a T lymphocyte disorder that arises in genetically susceptible individuals as a result of a breakdown in the regulatory constraints on mucosal immune responses to enteric bacteria.

- Ulcerative colitis and Crohn's disease differ in two general respects: anatomic sites and depth of involvement within the bowel wall.

- There is, however, overlap between the two conditions, with a small fraction of patients showing features of both diseases

Proposed Etiologies for Inflammatory Bowel Disease

- Infectious agents
  - Viruses (e.g., measles)
  - L-Forms of bacteria
  - Mycobacteria
  - Chlamydia
- Genetics
  - Metabolic defects
  - Connective tissue disorders
- Environmental factors
  - Diet
  - Smoking (Crohn's disease)
- Immune defects
  - Altered host susceptibility
  - Immune-mediated mucosal damage
- Psychologic factors
  - Stress
  - Emotional or physical trauma
  - Occupation

Comparison of the Clinical and Pathologic Features of Crohn's Disease and Ulcerative Colitis

Feature	Crohn's Disease	Ulcerative Colitis
Clinical		
Malaise, fever	Common	Uncommon
Rectal bleeding	Common	Common
Abdominal tenderness	Common	May be present
Abdominal mass	Common	Absent
Abdominal pain	Common	Unusual
Abdominal wall and internal fistulas	Common	Absent
Distribution	Discontinuous	Continuous
Aphthous or linear ulcers	Common	Rare
Pathologic		
Rectal involvement	Rare	Common
Ileal involvement	Very common	Rare
Strictures	Common	Rare
Fistulas	Common	Rare
Transmural involvement	Common	Rare
Crypt abscesses	Rare	Very common
Granulomas	Common	Rare
Linear clefts	Common	Rare
Cobblestone appearance	Common	Absent

ULCERATIVE COLITIS:

- Ulcerative colitis is confined to the colon and rectum and affects primarily the mucosa and the submucosa.

- The primary lesion occurs in the crypts of the mucosa (crypts of Lieberkühn) in the form of a crypt abscess.

- Local complications (involving the colon) occur in the majority of ulcerative colitis patients. Relatively minor complications include hemorrhoids, anal fissures, or perirectal abscesses.

- A major complication is toxic megacolon, a severe condition that occurs in up to 7.9% of ulcerative colitis patients admitted to hospitals.

- The patient with toxic megacolon usually has a high fever, tachycardia, distended abdomen, elevated white blood cell count, and a dilated colon.

- Approximately 11% of patients with ulcerative colitis have hepatobiliary complications including fatty liver, pericholangitis, chronic active hepatitis, cirrhosis, sclerosing cholangitis, cholangiocarcinoma, and gallstones.

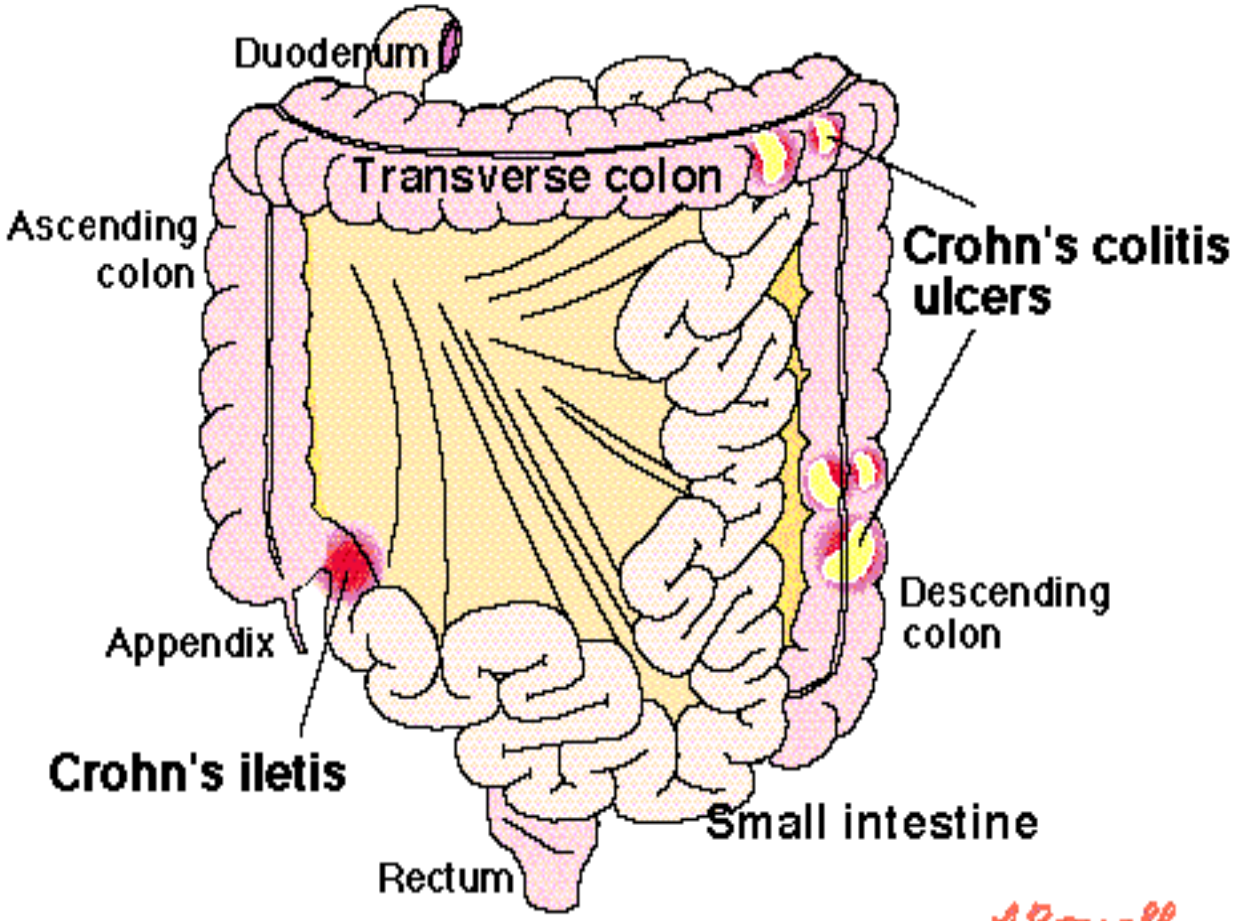
CROHN'S DISEASE:

- Crohn's disease is a transmural inflammatory process. The terminal ileum is the most common site of the disorder but it may occur in any part of the GI tract.

- About two-thirds of patients have some colonic involvement, and 15% to 25% of patients have only colonic disease.

- Small-bowel stricture and subsequent obstruction is a complication that may require surgery. Fistula formation is common and occurs much more frequently than with ulcerative colitis.

- Systemic complications of Crohn's disease are common and similar to those found with ulcerative colitis. Arthritis, iritis, skin lesions, and liver disease often accompany Crohn's disease.



CROHN'S DISEASE

Clinical Presentation of Ulcerative Colitis

Signs and symptoms

- Abdominal cramping
- Frequent bowel movements, often with blood in the stool
- Weight loss
- Fever and tachycardia in severe disease
- Blurred vision, eye pain, and photophobia with ocular involvement
- Arthritis
- Raised, red, tender nodules that vary in size from 1 cm to several centimeters

Physical examination

- Hemorrhoids, fissures, or perirectal abscesses may be present
- Iritis, uveitis, episcleritis, and conjunctivitis with ocular involvement
- Dermatologic findings with erythema nodosum, pyoderma gangrenosum, or aphthous ulceration

Laboratory tests

- Decreased hematocrit/hemoglobin
- Increased erythrocyte sedimentation rate
- Leukocytosis and hypoalbuminemia with severe disease

Clinical Presentation of Crohn's Disease

Signs and symptoms

- Malaise and fever
- Abdominal pain
- Frequent bowel movements
- Hematochezia
- Fistula
- Weight loss
- Arthritis

Physical examination

- Abdominal mass and tenderness
- Perianal fissure or fistula

Laboratory tests

- Increased white blood cell count and erythrocyte sedimentation rate