

Ulcerative Colitis Characteristics

Ulcerative colitis and Crohn's disease are inflammatory bowel diseases characterized by chronic inflammation of a portion of the GI tract resulting from inappropriate mucosal immune activation. Ulcerative colitis is characterized by severe ulcerating inflammation of the mucosal and submucosal layers that is limited to the colon and rectum. In contrast, Crohn's disease may involve any area of the GI tract and can extend into all layers of the GI wall. Although ulcerative colitis is not considered an autoimmune disease, there are associations with autoimmunity and thought to result from a mixture of defects in host interactions with intestinal microbiota, epithelial dysfunction, and aberrant mucosal immune responses. Grossly, ulcerative colitis always involves the rectum and expands proximally in a stepwise fashion to involve all or a part of the colon. Affected areas can demonstrate broad-based ulcers and regions of regenerating mucosa can bulge into the lumen creating pseudopolyps. Histologic features include inflammatory infiltrates and crypt abscesses. Chronic inflammation can cause the colon to become thickened and stiff and can lead to shortening of the colon with atrophic mucosa and loss of haustral folds. This can give the appearance of a lead pipe in the descending and sigmoid colon when visualized with barium study. The most common symptoms include relapsing attacks of bloody diarrhea with mucous and pus and cramping lower abdominal pain. Chronic disease can lead to anorexia, weight loss, and even growth retardation.



PLAY PICMONIC

Autoimmune

Auto-in-moon

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Mucosal and Submucosal Only

Mucous Submarine

The inflammation of ulcerative colitis only extends to the mucosal and submucosal layers as opposed to Crohn's disease which is characterized by transmural inflammation.

Rectal Involvement

Rectum-rectangle

Grossly, ulcerative colitis always involves the rectum and expands proximally in a stepwise fashion to involve all or a part of the colon.

Stepwise Lesions

Steps

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Friable Pseudopolyp

Frying-pan with Sumo-polyp

Affected areas of the colon can demonstrate broad-based ulcers and regions of regenerating mucosa that can bulge into the lumen creating friable pseudopolyps.

Crypt Abscess

Crypt-creeper with Abscess-guy

An intestinal crypt is an epithelial gland lining the small intestine and colon and plays an important role in the formation of new epithelium. The basal portions of the crypt contain multipotent stem cells that differentiate and migrate up the side of the crypt and eventually into the villus. Abscesses in these regions are highly characteristic of ulcerative colitis and can lead to mucosal ulcerations.

Loss of Haustra

Loss of House

In the colon, haustra are small pouches outlined by taenia coli that give the colon its segmented appearance. Chronic inflammation can cause the colon to become thickened and stiff and can lead to shortening of the colon with atrophic mucosa and loss of haustral folds.

Lead Pipe Appearance

Lead Pipe handle

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Bloody Diarrhea

[Red toilet](#)

The most common symptoms of ulcerative colitis include relapsing attacks of bloody diarrhea with mucous and pus and cramping lower abdominal pain. Chronic disease can lead to anorexia, weight loss, and even growth retardation.