Ulcerative Colitis: Gastrointestinal Features

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Ulcerative colitis is an inflammatory bowel disease likely due to an autoimmune process. In North America, the prevalence of this disease is 1 per 1000, with a bimodal distribution of age of onset in the second and sixth decade of life [1].

The gastrointestinal (GI) symptoms include [1, 2]:

- Intermittent diarrhea mixed with blood and mucous, more than ten episodes per day in severe disease
- Intermittent rectal bleeding
- Tenesmus
- Abdominal cramping

The most common clinical signs and findings are [1, 2]:

- Initially limited to rectum/distal colon in 33%, extending proximally to the left colon in 33%, pancolitis in the remaining 33%
- Fevers to 39.5 °C in severe disease
- Anemia requiring transfusion
- Macro-ulcerations
- Pseudopolyps
- Oral aphthous ulcers
- Iritis, uveitis, episcleritis
- Seronegative arthritis, sacroiliitis
- Erythema nodosum, pyoderma gangrenosum
- Primary sclerosing cholangitis

The pathogenesis is not entirely clear but possibilities include [1, 2]:

- Likely components of autoimmune disease, and genetics
- Stress and environmental contributions

The pathology of mucosal biopsies can show [1, 3]:

- Gross: continuous colonic involvement with ulceration (see Fig. 49.1), loss of vascular markings, petechiae, exudates, friability, and hemorrhage
- Histological: distorted crypt architecture, crypt abscesses, cryptitis (see Fig. 49.2), inflammatory cells in the lamina propria

The diagnosis is made with a combination of [1–4]:

- Established with history and endoscopic findings
- Confirmed with histology on colonic biopsy
- Complete blood count, electrolytes, erythrocyte sedimentation rate, C-reactive protein, liver function tests
- Stool culture

The differential diagnosis of ulcerative colitis should include [1–4]:

- Crohn's disease
- Radiation colitis
- Ischemic colitis
- Infectious etiologies including *Escherichia coli, Shigella, Campylobacter, Salmonella*, and sexually transmitted diseases

Medical therapy does not cure the condition but offers symptomatic and ameliorative relief and includes [1–4]:

- 5-aminosalicylic acid rectally and/or orally
- Rectal steroids, oral steroids if no response
- Azathioprine, 6-mercaptopurine
- Infliximab, cyclosporine

Colectomy in steroid refractory disease offers definitive cure of the disease.

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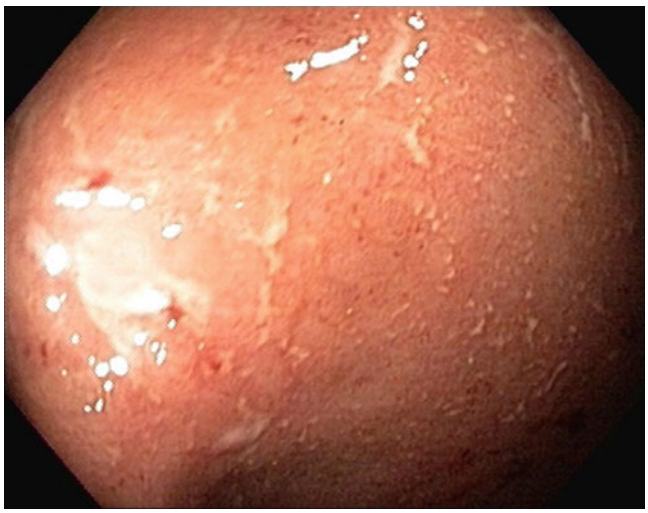

Fig. 49.1 An endoscopic view of showing multiple colonic mucosal ulcers in a patient with active ulcerative colitis

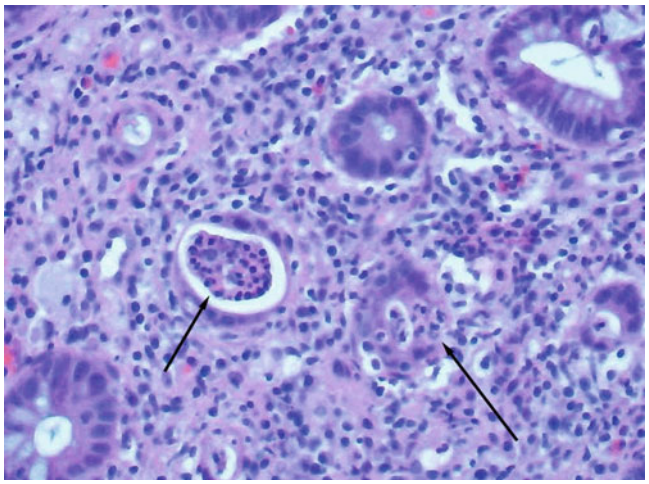

Fig. 49.2 A photomicrograph of a colonic mucosal biopsy from a patient with active ulcerative colitis. The increased edema and damage to the walls of the crypts (*arrow on the right*) as well as crypt abscesses seen as collections of inflammatory cells within crypts (*right arrow*). Hematoxylin and eosin; high power

References

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