

Figure 17-39 Uncommon causes of colitis. **A**, Diversion colitis. Note the large lymphoid aggregates with germinal centers. **B**, Collagenous colitis with intraepithelial lymphocytes and a dense subepithelial collagen band. **C**, Lymphocytic colitis.

particularly of crypt cells, is the most common histologic finding. Rarely, total gland destruction occurs, although endocrine cells may persist. Intestinal graft-versus-host disease often presents as a watery diarrhea but may become bloody in severe cases.

Sigmoid Diverticular Disease

Diverticular disease generally refers to acquired pseudo-diverticular outpouchings of the colonic mucosa and submucosa. Unlike true diverticula, such as Meckel diverticulum, they are not invested by all three layers of the colonic wall. Colonic diverticula are rare in persons younger than age 30, but the prevalence approaches 50% in Western adult populations older than age 60. Diverticula are generally multiple and the condition is referred to as diverticulosis. This disease is much less common in Japan as well as developing countries, probably because of dietary differences. Moreover, most diverticula in Asia and Africa occur in the right colon, while right-sided diverticula are uncommon in Western countries. The reasons for this difference in distribution are not well-defined.

Pathogenesis. Colonic diverticula result from the unique structure of the colonic muscularis propria and elevated intraluminal pressure in the sigmoid colon. Where nerves, arterial vasa recta, and their connective tissue sheaths penetrate the inner circular muscle coat, focal discontinuities

in the muscle wall are created. In other parts of the intestine these gaps are reinforced by the external longitudinal layer of the muscularis propria, but, in the colon, this muscle layer is gathered into the three bands termed taeniae coli. Increased intraluminal pressure is probably due to exaggerated peristaltic contractions, with spasmodic sequestration of bowel segments, and may be enhanced by diets low in fiber, which reduce stool bulk, particularly in the sigmoid colon.

MORPHOLOGY

Anatomically, colonic diverticula are small, flask-like outpouchings, usually 0.5 to 1 cm in diameter, that occur in a regular distribution alongside the taeniae coli (Fig. 17-40A). These are most common in the sigmoid colon, but more extensive areas may be affected in severe cases. Because diverticula are compressible, easily emptied of fecal contents, and often surrounded by the fat-containing epiploic appendices on the surface of the colon, they may be missed on casual inspection. Colonic diverticula have a thin wall composed of a flattened or atrophic mucosa, compressed submucosa, and attenuated or, most often, totally absent muscularis propria (Fig. 17-40B, C). Hypertrophy of the circular layer of the muscularis propria in the affected bowel segment is common. Obstruction of diverticula leads to inflammatory changes, producing diverticulitis and peridiverticulitis. Because the wall of the diverticulum is supported only by the muscularis mucosae and a thin layer of subserosal adipose tissue, inflammation and increased pressure within an obstructed diverticulum can lead to perforation. With or without perforation, diverticulitis may cause segmental diverticular disease-associated colitis, fibrotic thickening in and around the colonic wall, or stricture formation. Perforation is uncommon but it can result in pericolic abscesses, sinus tracts, and, occasionally, peritonitis.

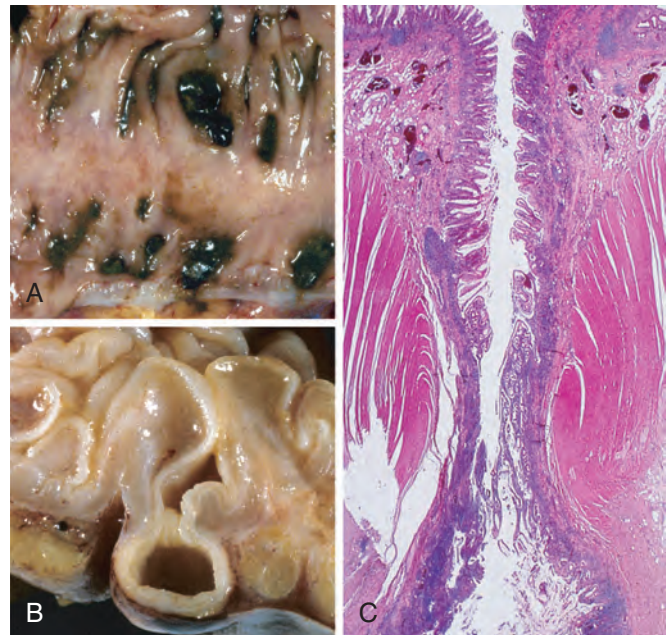


Figure 17-40 Sigmoid diverticular disease. **A**, Stool-filled diverticula are regularly arranged. **B**, Cross-section showing the outpouching of mucosa beneath the muscularis propria. **C**, Low-power photomicrograph of a sigmoid diverticulum showing protrusion of the mucosa and submucosa through the muscularis propria.