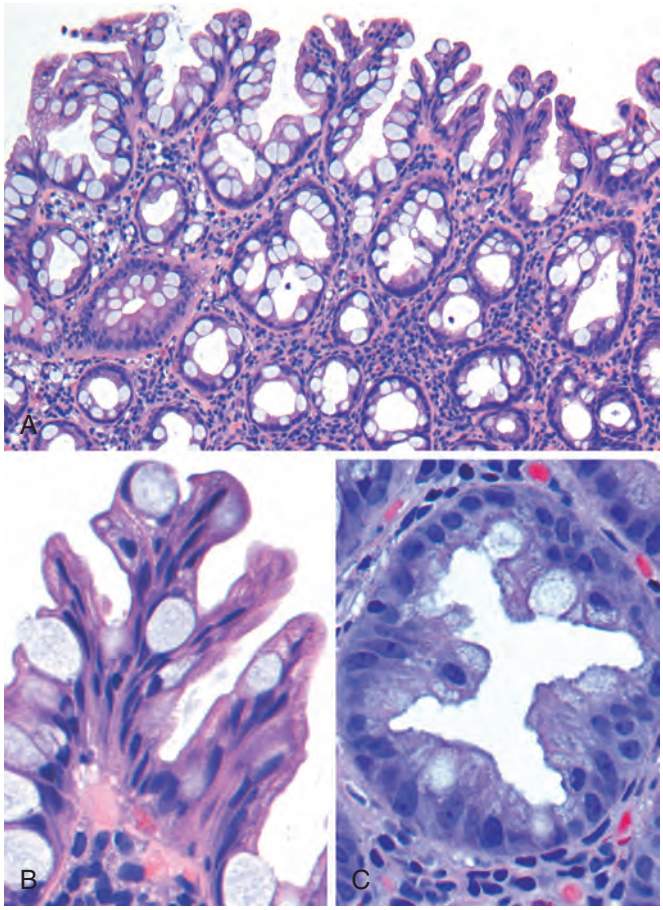

Figure 17-41 Hyperplastic polyp. **A,** Polyp surface with irregular tufting of epithelial cells. **B,** Tufting results from epithelial overcrowding. **C,** Epithelial crowding produces a serrated architecture when crypts are cut in cross-section.

the fecal stream leads to mucosal prolapse. The distinctive histologic features of a typical inflammatory polyp include mixed inflammatory infiltrates, erosion, and epithelial hyperplasia together with lamina propria fibromuscular hyperplasia (Fig. 17-42).

Hamartomatous Polyps

Hamartomatous polyps occur sporadically or as components of various genetically determined or acquired syndromes (Table 17-10)**.**

Although they were originally thought to be caused by developmental abnormalities, it is now appreciated that many hamartomatous polyp syndromes are caused by germline mutations in tumor suppressor genes or proto-oncogenes. Some of these syndromes are associated with increased cancer risk, either within the polyps or at other intestinal or extra-intestinal sites. Thus, in some hamartomatous polyp syndromes, the polyps can be considered to be pre-malignant, neoplastic lesions, much like adenomas. In addition, it is important to recognize these polyps because of associated extraintestinal manifestations and the possibility that other family members are affected. Several of these syndromes are discussed below, while other syndromes are summarized in Table 17-10.

Juvenile Polyps

Juvenile polyps are focal malformations of the epithelium and lamina propria. These may be sporadic or syndromic, but the morphology of the two forms is often indistinguishable. The vast majority of juvenile polyps occur in children younger than 5 years of age but they can present at older ages as well. Most juvenile polyps are located in the rectum and typically present with rectal bleeding. In some cases intussusception, intestinal obstruction, or polyp prolapse (through the anal sphincter) may occur.

Sporadic juvenile polyps are usually solitary lesions and may also be referred to as retention polyps. In contrast, individuals with the autosomal dominant syndrome of juvenile polyposis have from 3 to as many as 100 hamartomatous polyps and may require colectomy to limit the chronic and sometimes severe hemorrhage associated with polyp ulceration. A minority of patients also have polyps in the stomach and small bowel that can undergo malignant transformation. Pulmonary arteriovenous malformations and other congenital malformations are recognized extraintestinal manifestation of juvenile polyposis.

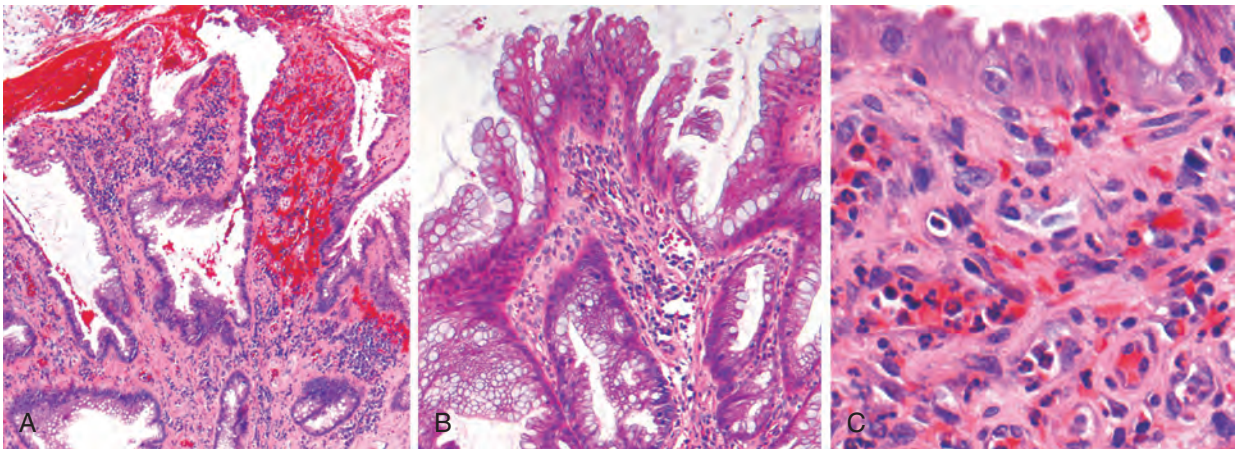

Figure 17-42 Solitary rectal ulcer syndrome. **A,** The dilated glands, proliferative epithelium, superficial erosions, and inflammatory infiltrate are typical of an inflammatory polyp. However, the smooth muscle hyperplasia within the lamina propria suggests that mucosal prolapse has also occurred. **B,** Epithelial hyperplasia. **C,** Granulation tissue-like capillary proliferation within the lamina propria caused by repeated erosion.