Colonic Filiform Polyposis in a Patient without Inflammatory Bowel Disease

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Abstract

Filiform polyposis is an uncommon entity that is most often encountered in the colon of patients with a history of inflammatory bowel disease (IBD). We report a case of filiform polyposis occurring in a 71-year-old man with no history or symptoms of IBD. The patient was found to have numerous polypoid lesions in the ascending and proximal transverse colon endoscopically and underwent hemicolectomy. Gross examination revealed numerous finger-like polyps spreading in the ascending colon and transverse colon. Histologic evaluation of the excised specimen demonstrated the polyps lined by cytologically bland colonic mucosa with fibrovascular cores. Acute and chronic inflammation including crypt abscesses was focally present. No significant ulcerations, granulomas, dysplasia or malignancy were identified. The diagnosis was filiform polyposis and he had an uneventful postoperative course. The pathogenesis of colonic filiform polyposis is still uncertain. Filiform polyps themselves are not considered precancerous in the patients without IBD.

Keywords: Colonic filiform; Polyposis

Introduction

Filiform polyposis is an uncommon entity manifested by multiple slender worm-like projections, histologically characterized as submucosal fibrovascular accentuation within normal mucosa [1]. The vast majority of cases occur in the setting of inflammatory bowel disease, particularly in patients with ulcerative colitis. Although esophageal, gastric and intestinal filiform polyps have been described, the colon is the most involved site where the sigmoid colon is the most common location [2-4]. In the literature, the polyps appear as a few to hundreds. In rare cases, several filiform polyps coalesce, resulting in a tumor-like mass [4-7]. Although filiform polyposis typically occurs in patients with inflammatory bowel disease, twenty-two cases have previously been documented in patients without inflammatory bowel disease. Here, we report a new case of filiform polyposis of the colon in a 71-year-old man with no history or evidence of inflammatory bowel disease.

Case Presentation

A 71-year-old man initially presented to our institution with a positive Hemoccult test that had been requested by his primary care doctor. There was no history of irregular bowel movements, diarrhea, constipation or inflammatory bowel disease. He denied any loss of weight or appetite. He subsequently underwent colonoscopy which showed numerous polyps in the ascending colon and proximal transverse colon with carpeting of many small polyps (Figure 1). An attenuated adenomatous polyposis syndrome was suspected. Diverticulosis of the left colon was noted. Given the extensive number of polyps, a laparoscopic right hemicolectomy was performed.

The intestine was 56.5 cm in length, including the ascending colon, transverse colon, appendix and a 6.5 cm long segment of terminal ileum. Macroscopically, the entire length of the large intestine was involved with approximately 150 polyps ranging in size from less than 0.5 cm to 4 cm (Figure 2A). Especially the distal portion of the specimen appeared to be confluent with clusters of polyps. The remaining mucosa was tan, with normal folds and without apparent defects or diverticula; the maximum wall circumference was 7 cm. The appendix was grossly unremarkable.

The polyps were liberally sampled for histologic evaluation, along with representative sections of grossly normal-appearing colon. Microscopically, the filiform polyps were lined by normal mucosa, including normal lamina propria and epithelium. The submucosal cores of the polyps were composed of fibrovascular tissue (Figure 2B).
and 2C). Non-specific chronic inflammatory infiltrates and focal active inflammation including crypt abscesses were present in a part of the lesions. Focal mild crypt distortion and basal plasmacytosis were present. No ulcerations, granulomas, pyloric metaplasia or dysplasia were identified (Figure 2C). The uninvolved (nonpolyoid and grossly normal) colon was unremarkable with no significant chronicity or pyloric gland metaplasia (Figure 2D). There was no evidence of ulceration, granuloma formation, or chronic mucosal injury. Histologic features suggestive of active or inactive IBD were not identified. In addition, a separate tubular adenoma (0.4 cm) was present in the ascending colon.

Figure 2: Gross and microscopic examination of the colon. A, Gross appearance of a segment of the colon at the hepatic flexure, showing numerous slender, wormlike filiform polyps. B-D, Microscopic features of the filiform polyps and nonpolyoid colon: the polyps show filiform projections with fibrovascular core (B, H and E 20X) and cytologically bland mucosa with non-specific chronic inflammatory infiltrates (C, H and E, 100X); the uninvolved colonic mucosa between the polyps shows no significant histopathologic alterations (D, H and E, 200X).

Follow-up at six months post-surgery, the patient reported no complaints. The CT scan was unremarkable with the exception of diverticulosis of the left colon and postsurgical changes consistent with right hemicolectomy.

Discussion

The term filiform polyposis was used to define a condition characterized by the presence of numerous, densely packed, filiform polyps in the gastrointestinal tract, which microscopically have wormlike projections of mucosa and submucosa [8]. Although filiform polyposis typically occurs in the setting of IBD, it is important to realize that rare cases, including ours, have occurred with no prior history or symptoms of IBD.

Filiform polyposis has a slight preponderance in men, affecting a range of ages from 6 to 77 years, with an average of 38 years [8]. In some cases, the polyps are difficult to distinguish from villous adenomas, and biopsies are needed to make the diagnosis [8,9]. On microscopic examination, the polyps are lined by normal, edematous, or superficially ulcerated colonic mucosa [10]. Filiform polyposis usually has a thin, straight shape resembling the stalks of polyps without the heads [11]. The polyps usually range in size from 1.5 to 3.0 cm in length, but may occasionally grow up to 9 cm in length forming a giant polyp. The polyps usually range in size from 1.5 to 3.0 cm in length. Some are long, slender, worm-like or finger-like projections that can extend up to 9 cm in length [12]. The polyps may be localized, or they may diffusely involve the colon [13,14]. Distinctive colonic filiform polyposis may endoscopically mimic familial adenomatous polyposis, the presumptive preoperative diagnosis for the present case. Furthermore, numerous conglomerated polyps might give [13] the appearance of a fungating mass; such a mass has been confused with cancer in colonoscopy and radiology studies. Generally, there is no definite evidence that filiform polyposis itself represents a precancerous condition [10].

The pathogenesis of filiform polyposis is uncertain. This disease is frequently associated with underlying inflammatory bowel disease. It has been suggested that the continuous inflammatory process and the alternating periods of ulceration and healing may lead to the formation of finger-like projections [15]. To the best of our knowledge, 22 similar cases of filiform polyposis in patients without a history of inflammatory bowel disease (7 women, 15 men) have been reported at the time of writing [16]. Filiform polyposis may be sequelae of prior injury or inflammation and has been reported to be associated with necrotizing enterocolitis, enema-induced colitis, ureretosigmoidostomy, stercoral ulcer, Langerhans cell histiocytosis X, or colonic tuberculosis [11]. In contrast, some authors suggest that the pathogenesis of filiform polyps may not be related to a post-inflammatory reparative process but instead to a hamartomatous process because they have recorded observations of neuromuscular and fibrovascular hyperplasia or disarray [13].

The clinical management of patients with filiform polyposis is variable and should be assessed on a case-by-case basis. Filiform polyps themselves are not considered precancerous [9]. However, tight collections of filiform polyps or “giant inflammatory polyps” can mimic adenomatous polyps and even malignancy [8]. While some authors believe that filiform polyposis itself is not an indication to operate [9,17] local resections have been performed in many of the reported cases because an occult adenocarcinoma was reported to have been found in a giant pseudopolyp [10]. It is difficult to endoscopically identify the rare malignant tumor. In addition, surgical intervention has been advocated in those cases in which symptomatic relief is desired, frequently for abdominal pain or severe hemorrhage and anemia [9,17,18].

In summary, colonic filiform polyposis is commonly seen in patients with IBD, but rarely seen in patients without a history of IBD. The sigmoid colon is the most common colonic location. This case is unique as numerous filiform polyps present in the ascending and proximal transverse colon. The pathogenesis of colonic filiform polyposis is still uncertain. Filiform polyps themselves are not considered precancerous in patients with no IBD. The clinical management of patients with filiform polyposis is variable and should be assessed on a case-by-case basis.

References


