

Case Report

Giant filiform polyposis in a patient with inflammatory bowel disease presenting with intestinal obstruction

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Summary

A 50-year-old known patient with ulcerative colitis with relapses and remissions presented with clinical features suggestive of bowel obstruction. Radiological studies confirmed an obstructive mass lesion in the hepatic flexure of the colon. Due to bowel obstruction and suspicion of malignancy an emergency laparotomy and partial ileo-colectomy was performed. A complex polypoid mass comprising numerous slender straight finger-like villi lined by non-neoplastic colonic mucosa with serrations at the base and prominent lamina propria smooth muscle splaying was identified and a diagnosis of filiform polyposis was made. We report this unusual manifestation of an inflammatory reaction presenting as a colonic mass clinically and radiologically mimicking malignancy.

Key Words: *Inflammatory bowel disease, Ulcerative colitis, Colonic mass, Filiform polyposis.*

Introduction

A colonic mass in a patient with inflammatory bowel disease (IBD) is a diagnostic challenge. The imaging studies and histopathology play a key role in the diagnosis and management. IBD is a chronic inflammatory condition which may involve the entire gastrointestinal tract with a natural course of relapses and remissions. Carcinoma, dysplasia-associated lesion or mass (DALM) and inflammatory pseudo-polyps are known mass lesions of the gastrointestinal tract in patients

with long standing IBD [1]. Furthermore, unrelated lesions such as adenomata can also occur in these patients.

Filiform polyposis (FP) of the colon is an uncommon lesion which can occur in IBD rarely. Even though the pathogenesis of FP is uncertain it is generally thought to be associated with post-inflammatory reparative process [2]. The term FP was introduced by Appelman et al. who used it to describe a syndrome involving the radiological appearance of numerous long slender worm-like or filiform defects in the colon [3]. The colon remains the most involved site and the sigmoid colon is the commonest location; additionally oesophageal, gastric and small intestinal involvement has been described. Sparing of the rectum is also documented in the literature [4, 5].

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We report a case of a mass lesion caused by filiform polyposis of the colon due to an unusual inflammatory reaction of ulcerative colitis in a middle-aged male, which mimics malignancy clinically and radiologically.

Case report

Clinical history

A fifty-year-old man presented with abdominal pain, abdominal distension and constipation for several days. He was a known patient with ulcerative colitis for ten years with several episodes of relapses even under continuous medical treatment. He had no previous history of colonic polyps, colon cancer or significant surgical history. His appetite had not changed. Imaging studies (USS and CT scan) revealed a mass lesion at the hepatic flexure with evidence of bowel obstruction. Subsequently, an emergency exploratory laparotomy was performed to relieve the obstruction and as malignancy was strongly suspected a near total colectomy was performed.

Pathological features

The resected specimen comprised terminal ileum of 90 cm in length, caecum with appendix and the rest of the colon 104 cm in length. There was a mass in the ascending colon closer to the hepatic flexure (Figure 1) which comprised numerous slender straight finger like villi, resembling stalks of polyps without heads. The length of these villi varied from 10 mm to 70 mm.



Figure 1: Gross appearance of the filiform mass in the ascending colon. Note the slender straight finger like interconnected villi.

Some polyps were interconnected with each other forming a complex polypoid mass, involving nearly 14 cm of the colon lengthwise and 90% of the circumference. There was another smaller pedunculated polyp 10 mm in diameter, located 100 mm distal to the main mass. Ulcers, strictures, fissures, diverticula or areas of cobble-stone appearance were not present in any part of the rest of the colon.

Microscopically, the mass lesion revealed slender elongated filiform papillaroid structures lined by non-neoplastic colonic mucosa. Most pits showed serrated appearance at the base with a normal number of goblet cells. Prominent smooth muscle splaying was noted in the lamina propria. Neither cryptitis nor crypt abscesses were evident.

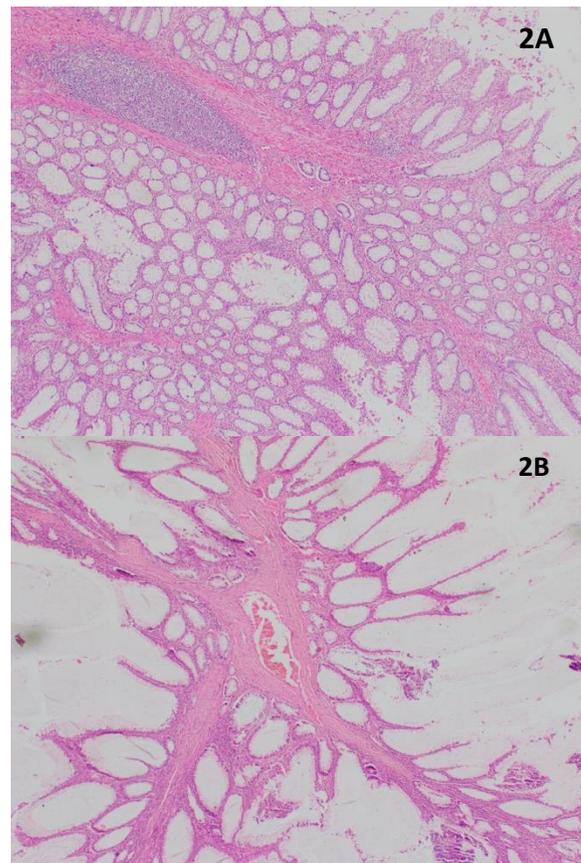


Figure 2: Photomicrograph of the growth, showing slender elongated filiform papillaroid structures lined by colonic mucosa {Haematoxylin and Eosin x 4 (2A) and x10 (2B)}

The mucosa was not dysplastic and features of invasive malignancy were not present (Figure 2A and 2B). Considering the unique macroscopic appearance and the microscopic features, a diagnosis of a giant filiform inflammatory polyposis of the colon was made.

The smaller polyp was a benign inflammatory polyp. The rest of the colon showed features suggestive of ulcerative colitis with partial response to treatment such as relatively preserved crypt architecture with only focal architectural disruption, patchy increase in mixed inflammation in the lamina propria, scattered cryptitis and crypt abscesses (Figure 3). Granulomata were not evident.

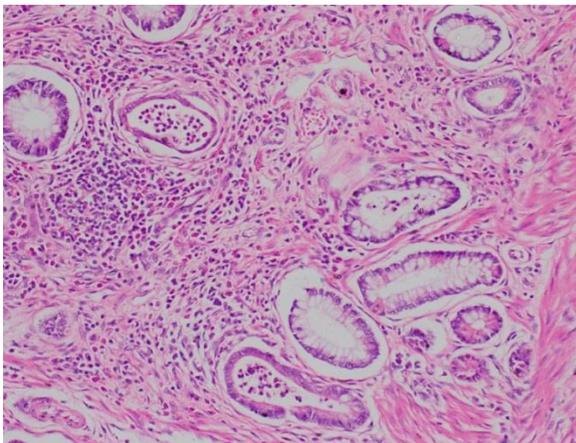


Figure 3: Photomicrograph of the rest of the colon showing cryptitis and lamina propria inflammation. (Haematoxylin and Eosin x 40)

Accordingly, the final diagnosis of filiform inflammatory polyposis of the colon arising in a background of ulcerative colitis with partial response to treatment was made.

Discussion

Filiform polyposis is a rare entity which usually occurs in the setting of IBD, especially in patients with ulcerative colitis [3]. It manifests as multiple slender worm-like projections that can extend up to 90 mm in length and can have superficial bridging between the adjacent polyps making the appearance rather complex [3]. Histologically, the lesion is characterized by normal mucosa with nonspecific acute and chronic inflammation and

accentuation of the submucosal fibro-vascular tissue. Dysplasia is not a feature of FP. The exact pathogenesis of FP is uncertain. It is likely that, long-standing inflammation of the colonic mucosa in chronic inflammatory bowel disease with alternating mucosal damage and healing may lead to exuberant mucosal regeneration giving rise to the mentioned unique appearance in FP [4, 6]. In the present case, long standing ulcerative colitis with poor response to medical treatment, resulting in frequent relapses, might have contributed to FP.

The polyps of FP can be solitary, localized or diffusely involve the colon. Diffuse colonic FP may endoscopically mimic familial adenomatous polyposis. Furthermore, numerous conglomerated localized polyps as in our patient could mimic malignancy in colonoscopy and radiological studies. The solitary individual filiform polyps are difficult to distinguish from villous adenomas, necessitating a biopsy or polypectomy to establish a definitive diagnosis and to exclude malignancy [4, 7]. Absence of dysplasia on microscopy excludes the possibilities of DALM and adenoma.

Clinical presentation of the FP depends on the size, location and extent of the lesion. It is mostly asymptomatic and incidentally diagnosed on colonoscopy. However, patients may present with a variety of symptoms, including cramping abdominal pain, anaemia, weight loss, melena and diarrhoea. The condition can also produce obstruction and intussusception, especially in localized large fungating mass lesions as in this case [4].

Despite the tumour-like appearance, FP has no tendency to become malignant, even in large masses [5]. Polypectomy and management of IBD and any other triggering factors are sufficient in uncomplicated patients [8]. But complications such as acute massive haemorrhage or intestinal obstruction might necessitate surgical resection as in this case [9].

We report this case of giant filiform polyposis in a middle aged, known IBD patient as to its rarity, complicated presentation and radiological and gross malignant impression for the awareness of surgeons, radiologists and pathologists.

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