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Case Report

A Rare Case of Giant Filiform Polyposis in a Known Case of Ulcerative Colitis

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ABSTRACT

Background: Filiform polyposis is a rare manifestation of inflammatory bowel disease (IBD), particularly ulcerative colitis, presenting as multiple slender, worm-like mucosal projections. Despite its neoplastic mimicry on imaging and endoscopy, filiform polyposis is considered benign.
Case Presentation: We report a rare case of a 61-year-old male with a 10-year history of ulcerative colitis who presented with generalized abdominal pain and rectal bleeding. Colonoscopy revealed extensive pseudopolyps with synechiae predominantly in the ascending and transverse colon. A total proctocolectomy was performed due to disease severity and suspicion of neoplasia. Histopathology revealed classic features of filiform polyposis without dysplasia or malignancy.
Conclusion: This case highlights the importance of recognizing filiform polyposis as a rare benign sequela of ulcerative colitis that may mimic malignancy. Early recognition is crucial to avoid overtreatment.
Key-words: Filiform polyposis, Ulcerative colitis, Inflammatory bowel disease, Pseudopolyps

INTRODUCTION

Filiform polyposis (FP), also known as inflammatory pseudopolyposis or post-inflammatory polyps, is a benign but rare colonic lesion typically arising in the context of inflammatory bowel disease most commonly ulcerative colitis and, less often, Crohn's disease.[1] First termed by Appelman et al. in 1984, FP presents radiologically and endoscopically as numerous slender, worm-like mucosal projections that can cluster into mass-like formations, often mimicking neoplasia.[2]

These filiform projections generally measure 1.5 to 3 cm, although "giant" variants exceeding ~3.0 cm and in rare cases up to 9 cm have been documented, especially in the colon's sigmoid, transverse, and descending segments.[3] Histologically, FP is composed of non-neoplastic colonic mucosa draped over fibrovascular cores, a feature that reflects a post-inflammatory reparative process rather than a true neoplastic growth.

Although dysplasia is uncommon, rare instances of occult adenocarcinoma arising within or adjacent to giant pseudopolyps have been described, underscoring the importance of biopsy and vigilant surveillance.

The proposed pathogenesis involves cycles of mucosal ulceration and regeneration, where granulation tissue develops into filiform protrusions, aided by peristaltic forces. Clinically, FP is rare about 50–60 IBD-associated cases have been reported worldwide, with very few documented in South Asia**,** raising concern for under-recognition.[3]

Though often asymptomatic, FP can present with bleeding, obstruction, or palpable mass, and may even undergo regression with improved medical therapy yet in some cases, surgical intervention is required when complications or diagnostic uncertainty arises. Here, we present a rare and complex case of FP in an Indian patient with long-standing ulcerative colitis, aiming to increase awareness of this diagnostic challenge.

CASE HISTORY

A 61-year-old male with biopsy-proven ulcerative colitis for the past ten years presented with generalized abdominal pain, fresh rectal bleeding, and significant unintentional weight loss over several days. There was no associated fever, tenesmus, or mucous discharge. The patient had well-controlled type 2 diabetes and no prior history of colorectal polyps, carcinoma, or abdominal surgery.

Initially, the patient had been treated with mesalamine foam enemas for several years, with a favorable response. However, later he discontinued conventional therapy in favor of Ayurvedic treatment. Following cessation of standard medical management, clinical remission was not maintained, and symptoms gradually reappeared.

Subsequent colonoscopic evaluation revealed diffuse mucosal inflammation, friability, and ulceration involving the entire colon from rectum to caecum, with complete loss of vascular pattern indicating development of pancolitis. Numerous pseudopolyps of varying sizes were identified, predominantly in the ascending and transverse colon, accompanied by synechiae formation, raising concern for chronicity-related transformation [Fig 1A&B].

Due to persistent bleeding, severe disease, and concern for malignancy, a total proctocolectomy was performed. The resected specimen measured 99.0 cm in total length and included 4.0 cm of terminal ileum, 2.5 cm of ileocecal junction, 82.5 cm of colon, 7.0 cm of rectum, and 3.0 cm of anal canal.

Gross examination revealed numerous slender, elongated, finger-like projections forming complex polypoid masses, ranging in size from 0.3 cm to 6.5 cm in length, particularly involving the ascending, transverse, and descending colon, collectively spanning approximately 54.0 cm. Several of the pseudopolyps were interconnected, forming nodular mucosal elevations with near circumferential involvement in some segments. The remaining mucosa showed areas of ulceration and edema, with no evidence of strictures, fissures, diverticula, or cobblestone appearance [Fig 2A].
Microscopy revealed slender, filiform structures lined by non-neoplastic colonic mucosa with preserved goblet cells [Fig 2B]. The lamina propria contained a moderate chronic inflammatory infiltrate along with prominent fibrovascular cores. The remaining colonic mucosa showed widespread ulceration, architectural distortion of the crypts, including crypt dilation, shortening, and areas of Paneth cell metaplasia, consistent with chronic colitis [Fig 2C & 2D]. Written informed consent was obtained from the patient for publication of this case report and accompanying images. Findings supported a diagnosis of giant filiform polyposis in ulcerative colitis a benign, post-inflammatory mucosal reaction with exuberant non-dysplastic projections.

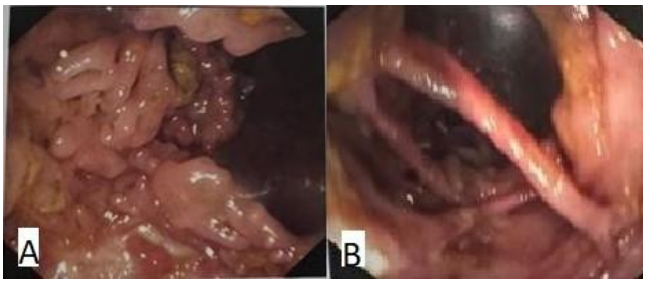

Figure 1 (A&B): Colonoscopic findings- Colon showed multiple pseudopolyps with synechie in ascending/transverse colon.

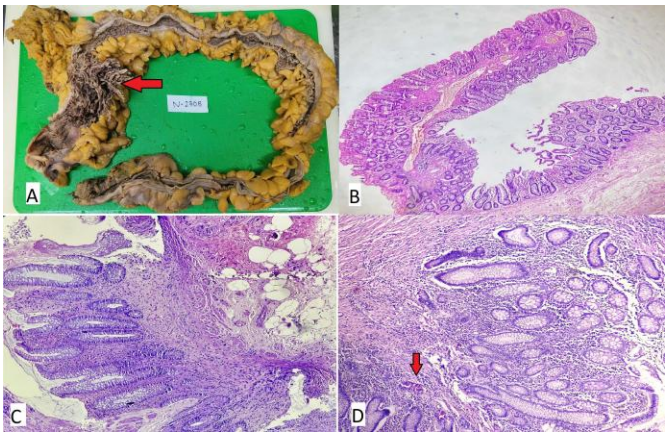

Fig 2 A: Gross findings showed multiple long, slender worm like pseudopolyps, particularly involving the ascending (red arrow), transverse, and descending colon.; **Fig 2B:** (40X, H&E) Filiform projections lined by benign colonic mucosa with fibrovascular cores, without dysplasia. **Fig 2C:** [100X, H&E] Colonic mucosa shows crypt architectural distortion with branching, shortening, basal plasmacytosis, and chronic inflammatory infiltrate in the lamina propria. **Fig 2D:** [100X, H&E] Colonic mucosa shows crypt architectural distortion, basal plasmacytosis, and paneth cell metaplasia (Red arrow).

DISCUSSION

FP is a rare, benign condition most often linked to chronic IBD, especially UC.[2] It manifests as elongated, worm-like mucosal projections, sometimes forming complex bridging patterns. These can appear mass-like endoscopically and may be mistaken for carcinoma. Histologically, FP shows non-dysplastic mucosa with fibrovascular cores and chronic inflammation. The underlying mechanism involves repeated mucosal injury and repair typical of chronic colitis.[1,4]

The differential diagnosis includes several neoplastic and non-neoplastic conditions:
Inflammatory polyps: commonly seen in chronic UC, are often broader, irregularly shaped, and lack the elongated, finger-like projections seen in FP.[2-6]
Hyperplastic polyps: small, sessile, serrated crypts, no mass-like clusters or lack the characteristic fibrovascular cores of FP.[7]
Peutz–Jeghers syndrome: arborizing hamartomatous polyps with smooth muscle in lamina propria, mucocutaneous pigmentation, and family history absent here.[8]
Familial adenomatous polyposis: numerous adenomatous polyps with dysplasia may rarely form villous or filiform-like projections, but unlike FP, these lesions are neoplastic and carry a significant risk of carcinoma.[1]
Dysplasia-associated lesion/mass (DALM): endoscopic resemblance but with histologic dysplasia or carcinoma which is absent in FP.[9]
Villous adenomas: finger-like projections but with epithelial dysplasia distinguishing them from the non-dysplastic mucosa of FP.[7]

Histology is crucial to distinguish FP from these mimics, as gross appearance alone is unreliable.

While FP has been considered benign, rare malignant transformation has been reported, including occult adenocarcinoma or high-grade dysplasia particularly in long-standing disease.[10] Some studies suggest FP in non-IBD patients may have higher dysplasia risk than previously thought.[9]

Surgery is unnecessary for uncomplicated FP but indicated for bleeding, obstruction, or malignancy suspicion. Colectomy offers diagnosis and symptom relief. Preoperative biopsies may miss dysplasia; thus, thorough postoperative examination is crucial.

In our patient, a total proctocolectomy revealed extensive, interconnected filiform polyps without dysplasia or carcinoma, confirming a diagnosis of benign FP.Conclusion

Giant filiform polyposis is a rare but significant post-inflammatory mucosal reaction that must be distinguished from neoplastic polyps and syndromic conditions. Clinicians and pathologists must maintain a high index of suspicion in long-standing UC cases with mass-like colonic lesions to ensure accurate diagnosis and appropriate management. Increased awareness among gastroenterologists, surgeons, and pathologists particularly in low-reporting regions can help avoid unnecessary radical surgery while ensuring timely intervention when warranted.

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