ORIGINAL RESEARCH PAPER
Volume - 13 | Issue - 08 | August - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

INFLAMMATORY FIBROID POLYP HAVING CROHN'S DISEASE. - "BLOOD FROM A CUTTING STONE". REPORT OF A RARE CASE AND REVIEW OF THE LITERATURE.

Pathology

Dr. Falaq Rahim* Junior Resident *Corresponding Author
Dr. Anup Kumar Boler Professor
Dr. Shubham Bhattacharya Assistant Professor
Dr. Sayak Biswas Assistant Professor

ABSTRACT

Background/Aim: Reporting a rare case of a 42 year old male patient having Crohn's disease in a background of inflammatory fibroid polyp in the ascending colon. **Case Report:** The case presented to the surgery department as intermittent colicky abdominal pain and occasionally passing blood per stool for the past 3 months. Grossly, a colonic polyp measuring 5cms , situated 4 cm away from the colonic resection margin was found. Thickening of the colonic mucosal wall with cobblestone appearance were also noted. Histopathologically, it was an inflammatory fibroid polyp having an underlying Crohn's disease. Immunohistochemistry for CD 34 was done and showed positivity for stromal cells and around the granulomas. **Conclusion:** The case of having an underlying Crohn's disease in an inflammatory fibroid polyp is an extremely rare histopathological finding. Meticulous study of such reports will pave a way for better therapy to all patients.

KEYWORDS

Crohn's disease, inflammatory bowel disease, inflammatory fibroid polyp.

INTRODUCTION

Inflammatory fibroid polyp (IFP) is a rare tumor-like lesion that occurs throughout the GI tract of which the stomach is the most common site. Although occasional inflammatory fibroid polyps have been reported in patients with Cowden syndrome, in chronic inflammatory bowel disease including ulcerative colitis and Crohn's disease, and in a familial setting spanning three generations, there is no specific association between inflammatory fibroid polyp and underlying GI diseases[1]. IFPs are tumors of unknown etiology and of various sizes arising in the wall of the affected organ and involving different parts from mucosa to serosa. Although the exact etiology and the pathogenesis remain unclear, the lesion can be classified as a benign reactive one.

Clinically most patients present with weight loss, altered bowel habits, bleeding. Usually patients present to the emergency room with intermittent and colicky abdominal pain.[2]

Our case represents a rare finding of Crohn's disease in a background of inflammatory fibroid polyp in the ascending colon.

Case History

We had a 42 years old male patient complaining of intermittent, colicky abdominal pain and occasionally passing blood per stool for the past three months. Physical examination revealed mild abdominal distension and tenderness.

USG revealed a polypoidal lesion in the ascending colon. The radiological appearance was round, smooth, homogenous with a low central echogenicity. The skip-like areas were seen and the bowel walls thickened at intervals , imparting a characteristic " thumb printing sign" on radiology.

Colonoscopy findings revealed a pedunculated polyp. Mucosa was otherwise unremarkable except for occasional aphthous ulcers.

Immediately open laparotomy and surgical removal of the colon was done. We performed anti-Saccharomyces cerevisiae antibody , which came out to be positive.

Since there is no specific clinical or laboratory test that could confirm a diagnosis of crohns disease, the diagnosis is usually established based on a compilation of radiologic, endoscopic and pathological findings.

Macroscopic Examination

On gross examination , we found a segment of gut consisting of ileum measuring 9cm and colon measuring 7cm. There is a colonic polyp measuring 5cm in length , situated 4 cm away from the colonic resection margin. Thickening of the colonic wall was noted. Rest of the colonic mucosa appear flattened with loss of haustrations. However, a few mucosal areas showed " fat wrapping " and " cobblestone " like appearance. **(Fig;A)**

Microscopic Examination

Sections examined showed a polyp composed of bland spindle shaped and epithelioid type of cells arranged in a loose oedematous stroma in an inflammatory background, predominantly composed of eosinophils and histiocytes. The individual cells had a fine nuclear chromatin , inconspicuous nucleoli and a fair amount of eosinophilic cytoplasm. (Fig B)

In addition, the surface mucosa of both the polyp and the adjacent mucosa showed multiple fissuring ulcers and non caseating granulomas with few lymphoid follicles in the submucosa. Rare crypt abscess were noted. Mucodepletion was not marked. However high grade dysplasia or malignancy was not identified. Sections from both the colonic and ileal resection margins were unremarkable.**(Fig C & D)**.

ZN stain was performed which was negative for AFB. Immunohistochemistry for CD 34 showed focal and diffuse positivity for stromal cells , and around the granulomas. **(Fig E)**

Thus from the above histological findings , the case was reported as "Inflammatory fibroid polyp with features of idiopathic inflammatory bowel disease favoring Crohn's colitis."

DISCUSSION:

Inflammatory fibroid polyps are tumors involving the GI tract. Most patients diagnosed with IFPs located in the small and large bowel , often present with acute abdomen or rectal bleeding due to underlying chronic inflammatory bowel diseases.

To the best of our knowledge , only four other cases of IFP with Crohn's disease have been presented as case reports till date.

Shimer et al, first described 2 cases of existence of crohn's disease with IFP, among a series of 12 cases.[3]

Since its first description by Vaneck in 1949, histogenesis of IFP remains ambiguous, the cellular origin of IFP remains obscure even today. [4]

Many etiologies have however been suggested regarding the origin of IFP. They were:

- Presence of numerous eosinophils in the mucosa could suggest a fungal etiology, however this is not a distinctive histological finding.
- A possible neural hypothesis was reported , but that was confined only to gastric cases.
- The presence of smooth muscle bundles could suggest inflammatory myofibroblastic tumor over IFP.
- The lesion often presents in the form of a granulation tissue , may be due to a host response to trauma or tissue injury.

The list of differential diagnosis include benign tumors of the GI tract and eosinophilic gastroenteritis as well. The other differential diagnosis include inflammatory myofibroblastic tumor but inflammatory fibroblastic polyp differs clinically since they occur at a younger age. Histologically IFP also presents with more fibrosis and less lymphocytic infiltration.

As far as the correlation between IFP and Crohn's disease is concerned, we could not formulate a satisfactory etiopathogenetic link. It may be possible that the co-existence of IFP and Crohn's disease represent a reactive or reparative lesion.

Images

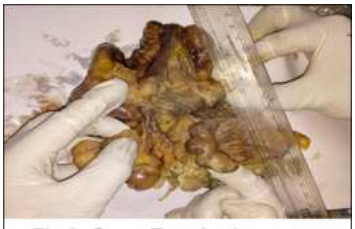

Fig:A; Gross Examination

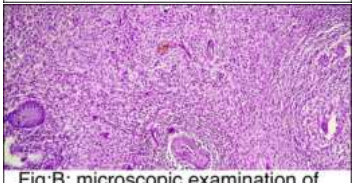

Fig:B; microscopic examination of polyp in H&E stain(10x)

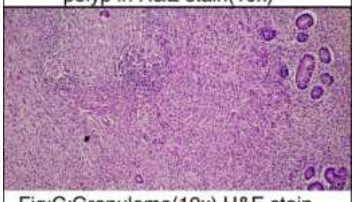

Fig:C;Granuloma(10x),H&E stain

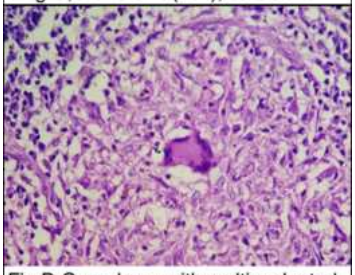

Fig:D;Granuloma with multinucleated giant cell(40x),H&E stain

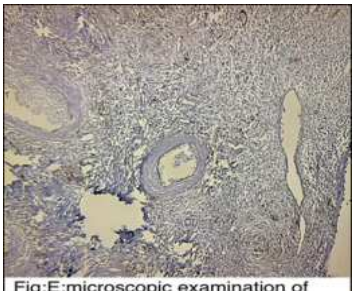

Fig:E;microscopic examination of Granuloma,IHC CD34,10x

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