Giant Inflammatory Polyposis Coli of Sigmoid Colon Mimicking Malignancy – A Case Report

Dhananjay B. Ghuge[1], Alok Tiwari[1], Aviral Verma[2], Parbhat Gupta[3]

ABSTRACT

Introduction: Giant inflammatory polyposis is an uncommon sequelae of the Inflammatory bowel disease involving large bowel. Case presents a challenging scenario for the pathologist and clinicians. On endoscopic findings there is strong suspicion of malignancy while same is not revealed on histopathological examination.

Case report: We report a rare case where a 19 years old boy presented with signs and symptoms of intestinal obstruction. On endoscopy a fungating mass was seen which was completely obstructing the sigmoid colon. Due to intestinal obstruction and strong suspicion of malignancy sigmoid colectomy was done. On gross examination it looked like malignancy but there was no evidence of malignancy on histopathology. Histopathological examination revealed diagnosis of giant inflammatory polyposis coli. So findings revealed diagnosis of this rare disorder which is a diagnostic dilemma and whose prior knowledge can save lots of confusion and can be of benefit to patient. In this case patient had a recurrence in seven months. With prior knowledge appropriate measures can be taken to prevent recurrence like on table evaluation, total colectomy as required for patient.

Conclusion: Giant Inflammatory polyposis coli resemble colonic malignancy and shares common clinical features at presentation. So, initial proper diagnosis may allow medical intervention with steroids, potentially ameliorating the progression and complications of the disease. While surgical resection may be both diagnostic and therapeutic, not all patients require extensive surgical management.

Keywords: Polyposis Coli, Sigmoid Colon, Mimicking Malignancy,

INTRODUCTION

Giant inflammatory polyposis (GIP) is a rare lesion which is benign in nature that is also known as localized giant pseudopolyps, or giant polyposis.[1] Inflammatory bowel disease (IBD) is known to be associated with Giant inflammatory polyposis where multiple inflammatory polyps are present, leading to colonic obstruction or bleeding. In literature, it was found that GIP involves mainly the descending colon and lesions were characterized by segmental or circumferential involvement. GIP is characterized by polyps that measure more than 1.5 cm, although smaller polyps have been seen.[1,2] Multiple giant polyps will give the appearance of a cauliflower like growth resulting in fungating mass or mass of worms. This similar colonoscopic and imaging finding is confused with colonic malignancy and many a times first diagnosis of carcinoma colon was made. The diffuse form of GIP is rarely seen where the whole colon is extensively involved. After initial surgical treatment, symptoms may persist for long period of time which include cramping abdominal pain, malena, anemia and colonic mass with or without features of intraluminal obstruction.[1,3] The main challenge is to identify this histopathologic abnormality on the small colonoscopic biopsy, as the findings of just inflammation are not fit into the clinical picture of suspected malignancy. Here, we present this unique and rare case of diffuse GIP.

CASE REPORT

A 19 year-old boy presented to Emergency Department of Dharamshila Cancer Hospital and Research Centre, New Delhi. He was admitted because of ''cramping'' abdominal pain and swelling. Patient was having episodes of constipation since many months and had become worse in the 6 days preceding presentation. Patient was having constipation, vomiting and abdominal distension.

The patient had never been diagnosed or treated for IBD. Laboratory findings revealed a hemoglobin level of 14.1 g/dL; hematocrit, 39.7%; and normal biochemical parameters. The leukocyte counts was normal and serum sodium, potassium and other electrolytes were within normal ranges. Colonoscopic findings show obstructing lesion in the sigmoid colon that is preventing the further negotiation of the endoscope and multiple punch biopsies were taken. On the same time brush cytology was also taken. Cytology revealed no malignant cells. Thereafter, exploratory laparotomy with sigmoid colon resection followed by primary anastomosis was done in view of colonic obstruction and strong suspicion of malignancy. No residual lesion was left. The histopathology of the resected ''tumor'' specimen established the diagnosis of GIP. There was a papillary growth 8x6x3 cm in size on gross examination. On microscopy hyperplastic colonic mucosa with dense collection of neutrophils and eosinophils with microabsess formation, lymphoplasmacytic cells and transmural inflammation with lymphoid follicles were seen. This suggested inflammatory polyposis in this case belonging to crohn's variety. Postoperative recovery was uneventful, and the patient was discharged after 7 days. After seven to eight months patient again develops similar symptoms of abdominal pain and malena suggestive of recurrence for which the patient was readmitted for further management and underwent colonic resection.

[1]III Year Student, [3]Consultant, Department of Surgical Oncology, Dharamshila Cancer Hospital and Research Centre, [2]Consultant Dentist, Dharamshila Cancer Hospital and Research Centre, New Delhi, India

Corresponding author: Dr. Dhananjay B. Ghuge, Dharamshila Cancer Hospital and Research Centre, New Delhi, OPD No.5. Ground Floor, India

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Pathologic Findings

Gross Findings

Received intestine measuring 18 cm in size. External surface shows congested appearance. On cutting concentric thin papillary growth over surface of 8x6x3 cm in size is seen. Wall appears slightly thickened. Twelve lymphnodes are seen in mesentry and largest is 1.5 cm in size

Microscopic Examination

Sections from papillary mass show hyperplastic colonic mucosa with dense collection of neutrophils and eosinophils with microabsess formation, lymphoplasmacytic cells, transmural inflammation with lymphoid follicles formation on serosal aspect. Cryptitis and focal branching is seen. No epithelioid granuloma seen. No malignant change is seen.

All twelve lymphnoes show features of reactive hyperplasia.

*Surgical margins show inflammatory change

DISCUSSION

10% to 20% of Inflammatory Polyps are associated with IBD mainly in patients with ulcerative colitis (UC).[2,4] GIP is a rare entity and less than 100 IBD associated cases have been found in the literature. In previous reports, higher association of UC (55%) with GIP has been reported, whereas rest of the cases were found in Crohn disease (45%).[5] Kelly et al[1] showed that GIP is associated with Crohn disease and UC, in two thirds and one third of the patients respectively. The clinical feature of GIP is a mass forming lesion which can involve colon extensively with multiple polyps or may be localized to a particular segment of the colon. The involvement of right side colon is uncommon.[4,6,7] The symptoms associated with GIP include anemia, cramping abdominal pain, weight loss, diarrhea, colonic obstruction, passage of blood per rectum and rarely intussusceptions or toxic megacolon which have been reported.[8] Maximum patients remain asymptomatic till they develop signs and symptoms like bleeding per rectum, colicky pain in abdomen, abdominal distension, anemia which increases the clinical suspicion of a large bowel obstruction secondary to malignancy. The pathognomic features of Crohn's disease like multiple colon and small bowel skip lesions, fistula formation and stricture formation are absent in GIP.Since this rare entity of IBD is localized to the descending and sigmoid colon.

The development of the giant polyps in GIP contributed to increase post inflammatory response or hyperplastic proliferation of the remaining mucosa of the colon in between the areas of multiple ulceration.[5,6,9] The time duration between the presentation of the symptoms to diagnosis and surgery is relatively short in patients with Crohn disease as compared to UC. This is due to the classical signs and symptoms and extensive transmural involvement in Crohn's disease which is absent in UC. Some authors have observed that such cases may represent a rapidly progressive form of Crohn-like disease due to development of giant polyps. GIP differs from Crohn's disease due to its absence of ileal involvement, lack of skip lesions and the rarity of multinucleated epithelioid histiocytes. Giant inflammatory polyposis is usually localized to the left side colon mainly in the sigmoid area. The colonic masses form causes subacute intestinal obstruction in view of soft and movable polyps which allows normal passage of stools.

Colonic malignancy with large polypoidal mass is a closest differential diagnosis of GIP.[1,2,9] The filiform appearance of the polyps might be mistaken for a fungating colon carcinoma. Ulcerated or constrictive type lesions are the most common findings in UC presented as toxic megacolon or perforation peritonitis. Malignancy in Crohn disease is very uncommon. Giant inflammatory polyposis is a known benign pathological entity. In our knowledge till date, there is only 1 reported case of an occult carcinoma that arises from localized GIP.[10]

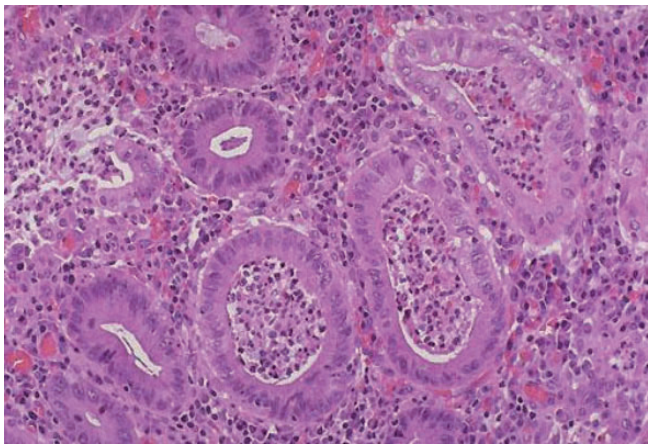

Figure-1: Showing opened colon with numerous worm like elongated polyps

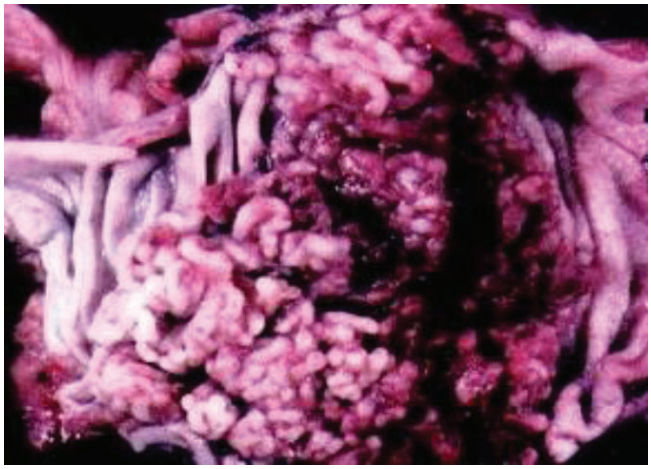

Figure-2: Showing crypt abcess and intense inflammatory infiltrate.

Being similar pathological features and among the group of IBD, GIP may be managed with nonsurgical treatment similar to UC and Crohn's disease in early disease process. Therefore, it is very essential to establish the correct diagnosis of GIP on colonoscopic biopsies. Due to late presentation, intestinal obstruction and similar clinical and radiographic findings, which resemble malignancy, most patients undergo surgical management despite the negative histology and associated inflammation. Because of its rarity, most of the clinicians are not familiar with this pathological condition and its complications. The presence of inflammation on the resected margins may indicate residual disease and contribute to potential recurrence. Hence, histopathological examination for negative margins in important.

CONCLUSION

To conclude, Giant Inflammatory Polyposis is a rare and benign entity mimicking malignancy. Initial proper histopathological

diagnosis may be benefited by medical management. While surgical resection is needed in advanced cases which is both diagnostic and therapeutic. The risk of recurrence contributed to positive margins and extensive colonic involvement, needs further management.

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