Giant Ileal Polyp Causing Ileocolic Intussusception

Radhika Chavan1*, Zaheer Nabi1, Anuradha Sekharan2, Rakesh Kalapala1, and Nageshwar Reddy1

1Department of Gastroenterology, Asian institute of Gastroenterology, Hyderabad, India
2Department of Pathology, Asian institute of Gastroenterology, Hyderabad, India

Received Date: April 12, 2017, Accepted Date: June 26, 2017, Published Date: June 30, 2017.

Corresponding author: Radhika Chavan, Department of Gastroenterology, Asian institute of Gastroenterology, Hyderabad, India, Tel: 91-40-233-788-88; Fax: 91-40-233-242-55; E-mail: drradhikachavan@gmail.com.

Abstract

A 55-year-old man presented with intermittent colicky abdominal pain for few months. The severity of pain increased over last 3–4 weeks. Physical examination revealed lump over right iliac and lumbar region. Colonoscopy showed a large polyp occupying almost entire lumen of colon extending from terminal ileum to hepatic flexure of colon. Contrast enhanced computed tomography (CT) of abdomen confirmed the findings of colonoscopy and revealed a large polyp arising from ileum and occupying the entire lumen of ascending colon resulting in ileocolic intussusception. As endoscopic resection was rendered unsafe due to limited working space, the patient underwent surgery and giant polyp was removed. Histopathology and immunohistochemistry of the polyp showed features of Inflammatory Fibroid Polyp (IFP). IFPs are rare benign tumors with varied presentations and should be considered in such cases where gigantic polyps are encountered during imaging (colonoscopy or radiological imaging). Smaller IFPs can be managed endoscopically. However, larger IFPs presenting with complications like intussusception as in our case demand surgical resection.

Keywords: Inflammatory fibroid polyp; Colonoscopy; Intussusception

Abbreviation

IFP: Inflammatory Fibroid Polyp; CECT: Contrast Enhanced Computer Tomography.

Introduction

IFPs are rare benign tumors most commonly found in stomach, followed by ileum. Smaller IFPs are usually asymptomatic. The presence of symptoms depends on the size and site of tumor [1]. Gastric IFPs can present with outlet obstruction and bleeding resulting in anemia whereas giant small bowel IFPs usually present with intussusceptions and bowel obstruction. Treatment options for IFPs include endoscopic resection for smaller lesions and surgery for giant polyps and those associated with complications like intussusception.

Case

A 55-year-old male presented with intermittent colicky abdominal pain associated with constipation and vomiting for three months, with increased severity of symptoms over last 3–4 weeks. On examination, inspection revealed slightly distended abdomen with a bulge visible over the right quadrant. On palpation there was a firm longitudinal lump of size 7×10 cm occupying the right iliac and lumbar region. Routine blood investigations revealed normal biochemical and hematological parameters.

Contrast enhanced CT abdomen showed large ileocolic intussusception with focal mass at hepatic flexure (Figure 1,2). Subsequently colonoscopy was performed for histological diagnosis of the lesion. Colonoscopy revealed a giant polypoidal lesion arising from terminal ileum, occupying whole of ascending colon lumen and extending up to hepatic flexure. Surface of polyp was ulcerated (Figure 3). Biopsy from the polyp showed edematous mucosa with eosinophil rich inflammatory infiltrates. Considering large submucosal tumor of ileal origin differential diagnosis of neuroendocrine tumor, gastrointestinal
tumor, leiomyoma, and schwannoma was considered. As patient had obstructive symptoms, he underwent surgery. Intraoperative finding showed large polyoid mass of size 55×56×48 mm extending from ileum reaching up to hepatic flexure causing ileocolic intussusception. The distance of polyoid lesion from ileoceleal valve was 110 mm. Ileo-colic resection with diversion ileostomy was done.

Gross examination of the resected specimen showed polyp of size 55×57×48 mm with surface ulceration. Histopathological examination showed lesion arising from submucosa with mucosal ulceration. The polyp was composed of bland spindle cells admixed with eosinophil rich mixed inflammatory infiltrate and small to medium sized vessels in a loose fibromyxoid background (Figure 4). Other IHC markers for neuroendocrine tumors, gastrointestinal stromal tumor (GIST), leiomyomas and schwannomas were negative confirming the diagnosis as inflammatory fibroid polyp (IFP).

**Discussion**

In this case report, we described a case of giant ileal IFP causing ileo-colic intussusception in a middle aged male. Though IFP causing intussusception has been reported several times, giant ileal polyp (> 4 cm) causing ileocolic intussusception is very rare. To our knowledge till now less than 10 such cases were reported (Table 1).

IFPs or “Vanek tumor” are rare benign tumors of gastrointestinal tract with unclear pathogenesis and etiology [2]. The peak age of occurrence is in sixth and seventh decades of life with slight male predominance. They are most commonly found in stomach (gastric antrum, 70%) followed by ileum (18%) and rarely in colon (usually in caecum).

Pathogenesis of IFP is still unidentified. Genetic study of IFP showed platelet derived growth factor alpha (PDGFRα) mutation, incidence of mutation ranges from 21.7–69.6%. PDGFRα mutation discriminates IFPs as true neoplasm (True benign tumor) and similar mutation is also expressed by gastrointestinal stromal tumors (GIST) [2]. Though both the entities share same mutation clinical behavior, origin of tumor, morphology and histology of IFPs completely differs from GIST. IFPs are submucosal benign tumor with no malignant potential [3].

Morphologically, IFPs can be sessile or pedunculated and size ranges from few mms to 20 cm. IFPs arise from submucosa with mucosal extensions.Usually the surface is ulcerated. Histology of IFPs shows vascular and fibroblast proliferation with varied amounts of inflammatory infiltrates (predominantly eosinophilic). The characteristic feature of perivascular onion skinning is seen in only 54% and varied amounts of eosinophils in 94% [4]. Two histological types of IFPs have been described - 1) gastric ("classic"), 2) intestinal type. Gastric type IFPs are characterized by heavy inflammatory infiltrate which is rich in eosinophilic granulocytes with plenty of spindle cells and little collagen whereas intestinal type lesions are paucicellular and collagen rich tumors and tend to be larger compared to gastric type [5]. Immunohistochemically IFPs are usually positive for CD34 (Preferably gastric type -86%) and negative for S-100 protein, P53, C-kit, DOG-1,EMA and Bcl-2. Immunohistochemistry differentiate IFPs from other submucosal tumor like GIST, leiomyoma, schwannoma, neuroendocrine tumor, etc [6, 7].

IFPs are usually asymptomatic, identified during endoscopy or laparotomy. Symptoms depend on the site and size of IFPs. Gastric IFPs may present as anemia from bleeding or gastric outlet obstruction due to obstruction of pyloric channel. Small bowel IFPs usually present with chronic colicky abdominal pain, anemia, lower gastrointestinal bleeding and, rarely intestinal obstruction as result of intussusceptions [7]. Varied presentations of IFP is described in literature. Gara et al. [8] described ileal IFP causing chronic ileocolic intussusception and mimicking cecal carcinoma in a 76 years old female. Kordzadeh A et al. [9] described a case of IFP mimicking as acute appendicitis. Although rare, perforation is a potential complication of ileal IFPs [10]. Though uncommon, association between IFPs and Crohn’s disease is also described in literature (3%) [11].

Intussusception as result of ileal IFP is either ileoileal or ileocolic. Although IFP is not having characteristic imaging features, CT scan is considered modality of choice in case of intestinal obstruction.

<table>
<thead>
<tr>
<th>Case</th>
<th>Age</th>
<th>Gender</th>
<th>Presentation</th>
<th>Size (in mm)</th>
<th>Length from IC valve</th>
<th>Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gara et al. [8]</td>
<td>76</td>
<td>female</td>
<td>Chronic colicky abdominal pain</td>
<td>55 × 35 × 25</td>
<td>70</td>
<td>done</td>
</tr>
<tr>
<td>Coulier et al. [12]</td>
<td>58</td>
<td>male</td>
<td>Intestinal obstruction</td>
<td>60 × 35</td>
<td>70</td>
<td>done</td>
</tr>
<tr>
<td>Lee et al. [13]</td>
<td>56</td>
<td>female</td>
<td>Intestinal obstruction</td>
<td>40 × 50 × 50</td>
<td>150</td>
<td>done</td>
</tr>
<tr>
<td>Our case</td>
<td>55</td>
<td>male</td>
<td>Intestinal obstruction</td>
<td>55 × 56 × 48</td>
<td>110</td>
<td>done</td>
</tr>
</tbody>
</table>

**Table 1:** Characteristics of Terminal Ileum giant IFP Causing ileocolic Intussusception.
CT scan also defines location and extent of the polyp [12,13]. No metastasis or malignant potential of tumor has been reported [4]. Therefore, resection of the polyp (endoscopic or surgical) is usually curative. Endoscopic resection of smaller and few of the larger IFPs is possible [14]. However, endoscopic removal of giant polyps (> 4 cm) is challenging and may require surgical resection. Being benign tumor resection in very rare case after surgical resection still recurrences were reported in case reports [15]. In our case the size of polyp and associated intussusception demanded surgery as the definitive treatment and there was no recurrence of tumor 6 months after the surgery.

Conclusions

Giant polyps are usually inflammatory fibroid polyps and though inflammatory fibroid polyps are rare can be considered as cause of intussusception in adults.

Conflicts of interest

Authors have no conflict of interest to disclose.

References


