CAS CLINIQUE/CASE REPORT

JEJUNOJEJUNAL INTUSSUSCEPTION CAUSED BY AN INFLAMMATORY FIBROID POLYP
Case Report and Review of the Literature

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ABSTRACT : Inflammatory fibroid polyps (IFPs) are rare benign submucosal growth of the gastrointestinal tract. The exact pathogenesis is still not well known. Clinical symptoms are variable. Physical exam and laboratory tests are helpful in establishing the diagnosis; however, microscopic examination of the resected lesions is required to confirm the diagnosis of IFPs. Surgical resection of the lesion remains the primary therapy.

Jejunojejunal intussusception secondary to IFPs in particular has only rarely been reported. We have reviewed all documented cases and added a new one to the literature. In this paper, we examine pertinent pathologic, epidemiologic, clinical, diagnostic, and therapeutic characteristics of this clinical entity.

INTRODUCTION

Inflammatory fibroid polyps (IFPs) are rare benign tumor-like lesions that originate in the submucosa of the gastrointestinal (GI) tract. IFPs may occur anywhere in the alimentary tract, but are seen mainly in the antral portion of the stomach, less frequently in the ileum, and only occasionally in the colon, jejunum, duodenum, and esophagus [1-2]. Jejunojejunal intussusception secondary to IFPs is uncommon and has only been reported in few cases.

CASE REPORT

A 52-year-old woman presented to the hospital with 10 days history of intermittent abdominal pain, nausea, and three episodes of vomiting. No fever, no chills reported. No weight change. Normal bowel movements, no fresh blood per rectum, no hematemesis reported. Past medical history is positive for osteopenia, hypertension, and dyslipidemia. Past surgical history is positive for hysterectomy and unilateral oophorectomy. Physical exam revealed tenderness of the mid and left abdomen and hyperactive bowel sounds. CBC, BUN, creatinine, electrolytes, and liver function tests were within normal limits. Chest X-ray was normal. X-ray of the abdomen showed disturbed gas distribution and distended smallbowels. Enhanced CT scan of abdomen and pelvis showed jejunojejunal intussusception with an intraluminal well-defined soft tissue mass (Figure 1). The patient underwent laparoscopic enterectomy and enterostomy.

Grossly, the mass showed a soft polypoid lesion, measuring 3.5 x 2.5 x 2.5 cm, with a yellow cut surface and focal areas of hemorrhage located at the tip (Figure 2). Microscopic examination showed a capillary network with stellate stromal cells and mixed inflammatory cell infiltrates (prominent eosinophils with neutrophils, lymphocytes and plasma cells) in a myxomatous stroma (Figure 3). Pathologic findings are consistent with an inflammatory fibroid polyp. The postoperative course was uneventful.

DISCUSSION

We searched the medical literature using the National Library of Medicine PubMed system and OLDMEDLINE from pre-1966 citations, from January 1945 through June 2006. Case reports of jejunojejunal intussusception were identified by querying the key words...
“inflammatory fibroid polyp” and “jejunojejunal intussusception.” Sixteen cases of jejunojejunal intussusception secondary to IFPs reported from 1981 to 2006, were identified (Table I) [2-15]. We herein describe a new case of IFP of the jejunum causing jejunojejunal intussusception.

IFPs have been first described by Vanek [16] in 1949, as “gastric submucosal granuloma with eosinophilia,” but similar lesions have been described in the small bowel and colon. Various names have been suggested, including eosinophilic granuloma, submucosal fibroma, hemangiopericytoma, inflammatory pseudotumor, and fibroma. The term IFP, first proposed by Helwig and Ranier [17] for the gastric polyps, has gained acceptance for similar lesions throughout the GI tract.

IFPs are non neoplastic cellular proliferations originating primarily from the submucosa of the GI tract. They are composed of fibroblasts, blood vessels, and inflammatory cells (particularly eosinophils) within an edematous and collagenous stroma. IFPs appear as sessile or polypoid, usually solitary, circumscribed, and round to ovoid nodules, and occasionally as nodular thickening of the bowel wall [1-2]. The microscopic features are similar to those in our patient.

The pathogenesis of fibroid polyps is unknown; a reactive process is favored. Johnstone and Morson postulated that the condition is a result of an uncontrolled proliferation of the mesenchymal tissue of the submucosa of the gut [1]. Helwig and Ranier [17] suggested that the striking features of IFPs are their polypoid nature and the characteristic arrangement of fibrosis and vascular elements. The degree of eosinophilic infiltration is variable and of doubtful significance.

IFPs may occur anywhere in the alimentary tract, but are seen mainly in the antral portion of the stomach, less frequently in the ileum (usually in the distal half), and only occasionally in the colon, jejunum, duodenum, and esophagus [2, 18]. In a review of 76 cases of IFPs, Johnstone and Morson [1] found a relative incidence of 75% in the stomach, 18% in the small intestine, 7% in the colon, and 1% in the esophagus.

Intussusception is a frequently and mostly benign condition in childhood. Conversely, it is a rare condition during adulthood and generally associated with an underlying malignancy [19]. IFPs affect both sexes and all age groups, with a peak incidence in the fifth and sixth decades, and a slight male predominance [1]. In a review of 64 cases of IFPs, Shimmer and Helwig [2] found that 61% of patients were males, and 39% were females. The patients ranged in age at diagnosis from 3 to 80 years, with a mean of 48.8 years. In the particular case of jejunojejunal intussusception secondary to IFP, we found a slight female predominance. The patients ranged...
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in age from 17 to 66 years, with a mean age of diagnosis of 49.1 years (Table I).

Clinical symptoms of IFPs are variable depending on the location and size of the lesion. Abdominal pain is the main symptom in patients whose lesions are in the stomach. Obstruction or intussusception is the most frequent initial symptom when located in the small intestine. Other GI symptoms such as vomiting, diarrhea, bloody stools, tenesmus, and alteration in bowel habits are infrequent [1-2, 12].

Physical exam, radiological studies, and laboratory tests are helpful in establishing the diagnosis; however, microscopic examination of the resected lesion is required. Radiographically, the plain abdominal film is usually the initial imaging study. The findings include small bowel distension with air-fluid levels and a small amount of gas in the colon. Ultrasound has a 100% sensitivity and 89% specificity rate in depicting intussusception. Classical ultrasound imaging features of intussusception included doughnut, target and bull’s eye signs [20]. CT scan of abdomen and pelvis with oral and IV contrast is the most accurate diagnostic tool for evaluation of intussusception. There are three classic CT patterns pathognomonic for intestinal intussusception: 1) target lesion-intraluminal soft tissue mass with eccentric fat density due to invaginated mesentery; 2) reniform pattern; 3) and finally sausage pattern [21]. Magnetic resonance imaging (MRI) can contribute to the radiologic diagnosis of intussusception by demonstrating the “bowel-within-bowel” or “coiled-spring” appearance [22]. Retrograde double balloon enteroscopy was reported to be useful for the preoperative diagnosis of IFP causing small bowel intussusception in one case [13].

The primary treatment of IFPs is exploratory laparotomy. The lesion seems to have no malignant potential, so local excision of the polyp is curative and recurrence of the polyps has been reported only once [1].

In summary, IFPs should be included in the differential diagnosis of medium-sized, single, mural, or intramural lesions of the GI tract, as well as in the differential diagnosis of intussusception or intestinal obstruction in elderly patients.

REFERENCES


TABLE I

<table>
<thead>
<tr>
<th>Author</th>
<th>Number of cases</th>
<th>Year</th>
<th>Age</th>
<th>Sex</th>
<th>Symptoms</th>
<th>Duration of symptoms</th>
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<tr>
<td>Williams [3]</td>
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<td>1981</td>
<td>NS</td>
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<td>1986</td>
<td>61</td>
<td>M</td>
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<td>1 week</td>
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<td>1994</td>
<td>52</td>
<td>F</td>
<td>Abd. pain, vomiting</td>
<td>10 days</td>
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<td>1994</td>
<td>56</td>
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Abd : abdominal NS : not stated

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