

Jejunojejunal Intussusception Due to Intestinal Polypoid Lipomatosis: a case report

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Intestinal lipomatosis is a rare disease entity. Few cases have been reported in the literature. It is often associated with characteristic CT findings, making a preoperative diagnosis possible.

Here we report a 49-year-old male who suffered from progressive abdominal distension, epigastralgia, nausea and vomiting for 2 days. Plain abdominal radiograph showed distended small bowels. Abdominal CT revealed multiple pedunculated submucosal lipomatous tumors in the proximal small bowel and intussusception.

Resection of the diseased bowel was performed due to persistent intestinal obstruction. The final diagnosis was intussusception due to polypoid lipomatosis.

Key words: Intussusception; Lipomatosis; Small intestine

Intussusception is one of the causes of intestinal obstruction and often seen in children younger than 2 years old. Adult cases are seldom encountered, and they often have underlying intestinal tumor as the leading point of intussusception.

Lipomas are the most common benign tumors of the intestines. Symptoms occur in less than one-third of affected patients, especially when the lipomas are more than 2 cm in size [1]. Most intestinal lipomas are solitary and submucosal in location. Intestinal lipomatosis is a very rare condition [2].

Lipomatosis of the intestine causing intussusception and intestinal obstruction is an even rarer condition. Here we present a case of segmental polypoid lipomatosis of the jejunum associated with jejunojejunal intussusception.

CASE REPORT

A 49-year-old male felt abdominal fullness after meal intermittently for about 2 years. The symptom usually subsided within an hour. Two days before admission, he began to suffer from progressive abdominal distension associated with postprandial fullness, epigastralgia and vomiting. There was no history of hematemesis or melena during the episode.

On examination, the abdomen was soft and distended, without palpable abdominal mass. Hyperactive bowel sound presented. The laboratory results of hematological examination, liver function test and urine analysis were all within normal limits. Stool occult blood test was negative. A plain abdominal radiograph showed dilated small bowel loops (Fig. 1). Abdominal computed tomography (CT) with contrast enhancement demonstrated dilated small bowels, a "whirl-like" mass involving the small bowel and mesentery at the superior mesenteric artery level. Multiple masses with fat density were found in the wall of the proximal small bowel (Fig. 2, 3). The patient was diagnosed as lipomatosis of the jejunum complicated by intussusception. He was then admitted and small bowel follow-through study showed partial intestinal obstruction with proximal

dilatation and multiple filling defects with smooth surface in the dilated proximal jejunum (Fig. 4). Due to the symptoms of intestinal obstruction, the patient underwent laparotomy after admission.

At laparotomy, intussusception was depicted in the proximal jejunum. Numerous polypoid masses were palpated in the dilated jejunum. The diseased bowel segment was resected followed by an end-to-end anastomosis.



Figure 1. Plain abdominal radiograph showed dilated small bowel loops in the upper abdomen.



Figure 3. Abdominal CT showed a “whirl-like” mass involving the small bowel and mesentery at the superior mesenteric artery level, which indicated intussusception (arrow).



Figure 2. Abdominal CT showed multiple polypoid submucosal lipomatous masses in the dilated proximal small bowel (arrows).



Figure 4. Small bowel follow-through study showed partial intestinal obstruction and multiple filling defects with smooth surface in the dilated proximal jejunum (arrowheads).

After the patient's general condition became stable, repeated small bowel follow-through study showed multiple filling defects with smooth surface in the proximal jejunum, which probably were the residual lipomas (Fig. 6).

DISCUSSION

Benign tumors of the small bowel are relatively rare, with lipoma being the most common type [3]. The most common location of lipoma in the intestines is in the colon [4]. Small bowel lipoma may be submucosal or less frequently subserosal, single or multiple [5]. The term intestinal lipomatosis has been used to describe the presence of numerous circumscribed lipomas in the intestine [3]. Lipomatosis of the small bowel is an extremely rare disease, and only a few cases have been described in English literature. It may be distributed over a long segment of the ileum, jejunum, or both. The ileum is most commonly involved by intestinal lipomatosis [6]. The etiology of such lipomatosis is unknown. Pathologically, the proliferation of fat cells may be confined to the submucosa or may extend to the serosal and mesenteric fat. The muscularis propria is seldom affected [7].

Fewer than one-half of the patients who had intestinal lipomas became symptomatic, usually as a result of obstruction, intussusception or bleeding [1]. The ulceration of polyp might cause hemorrhage. In three-quarters of cases, ulceration was caused by intussusception; other causes of ulceration included

torsion, gangrene, or simple erosion [8]. Four types of intussusception have been recognized: enteric, ileocolic, ileocecal and colonic. This patient had enteric (jejunojejunal) intussusception, which is the most common form [2].

Intestinal lipomatosis usually occurs after the fourth decade of life, without gender prevalence [1]. Small bowel diverticulosis is frequently seen among patients with lipomatosis [3,7]. The incidence of diverticulosis may be higher in patients with extensive lipomatosis than in those whom a small segment of bowel is affected [7]. However, lipomatosis in the case reported here was not associated with small intestinal diverticulosis.

Although a preoperative diagnosis of intussusception can be made according to the characteristic findings on ultrasound and CT, the etiology of intussusception is often not clear preoperatively. Ultrasound may demonstrate the typical target configuration by reflecting the different layers of the intussuscepted and intussuscepting wall of the loops [5]. CT typically demonstrates a 'whirl-like' mass involving the small bowel and mesentery around the superior mesenteric artery [3].

In this case, barium studies could be helpful for preoperative diagnosis. Lipomas are usually seen as smooth, nonulcerated, intramural filling defects. Because of their soft consistency, they may be

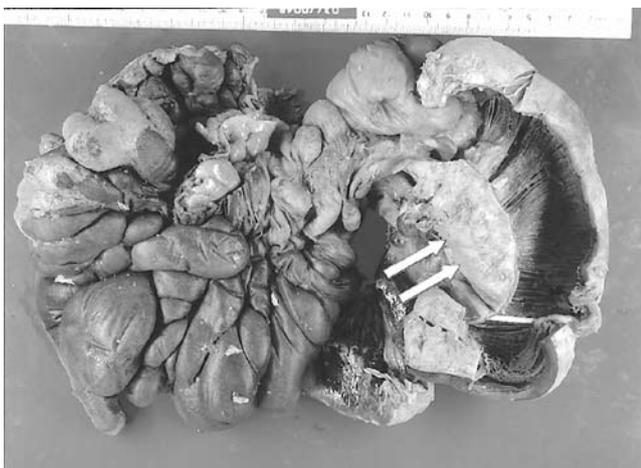


Figure 5. Gross appearance of the resected intestinal segment showed numerous fatty masses. They were yellowish fatty tissue underneath the mucosa in cross section (arrows).



Figure 6. Follow-up small bowel follow-through study after operation showed filling defects in the proximal jejunum, indicating residual lipomas (arrows).

changeable in shape and compressible at fluoroscopy [4]. In our case, the lipomas are compressible on the small bowel series. CT scan revealed typical pictures of intestinal lipomatosis characterized by multiple masses with fat density. With these typical radiographic findings, making a preoperative diagnosis is possible if we keep this rare disease in mind [8].

Unless the involved segment is so extensive that complete resection of the affected bowel is impractical, cure is readily accomplished by surgical removal [9]. ◆

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小腸脂肪瘤增生造成腸套疊：一病例報告

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小腸脂肪增生相當少見，在文獻中有些許病例的報告。它在電腦斷層上有特殊的影像學表現，可於開刀前診斷。

我們報告一個49歲男性，因為近兩天越來越嚴重的腹脹及上腹痛併噁心嘔吐而求診。腹部X-光片顯示局部小腸漲大，腹部電腦斷層發現多個黏膜下腫瘤併腸套疊，這些腫瘤在電腦斷層的密度相同於脂肪。由於明顯的小腸阻塞症狀，病人接受開刀。病理學檢查為小腸脂肪瘤增生造成腸套疊。

關鍵詞：腸套疊；脂肪瘤增生；小腸

