

Intussusception in a young woman caused by a colonic lipoma

Anthea B. Mahesan Paul, Abraham E. Paul, Andrew A. Mahesan, Tarnjot Saroya, Abhinav Sinha

ABSTRACT

Introduction: Intussusception is commonly discussed in the context of children. However in adults, intussusception is an identified diagnosis accounting for 5% of all intussusceptions. A malignant etiology is always suspected in adults; however, rarely as in this case, a benign bowel lesion may be the underlying cause. **Case Report:** In this case report, we present an unusual case of a 36-year-old female patient with pain in her left lower abdomen with loss of appetite, abdominal distension, and diarrhea lasting three days. Computed tomography scan confirmed the diagnosis of intussusception. A lipoma of the descending colon was the lead point for the intussusception into the sigmoid lumen. Sigmoid colectomy with primary anastomosis was performed. The resected specimen was a yellowish, oval, and broader-based homogeneous tumor, 4x4x3 cm in size, rising from the submucosal layer of the colonic wall. **Conclusion:** While an intussusception is clinically non-specific, intestinal obstruction is usually found to be the common presentation. This case highlights

the fact that adult intussusception though usually associated with malignancy in 2/3 of cases, a benign lesion may also rarely cause adult intussusception. Colonic lipomatosis, though only accounting for 0.035–4.4% of all polypoid lesions in the colon, should be kept in mind as one of the uncommon causes for intussusception in adults.

Keywords: Colonic, Lipoma, Children, Intussusception, Polyprid lesions

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INTRODUCTION

Although intussusception is generally discussed in the context of children, adult intussusception is an identified diagnosis accounting for 5% of all intussusceptions [1]. Intussusception is identified when the proximal segment of bowel called the intussusceptum, telescopes into the lumen of the adjacent distal segment, the intussusciptiens. Any lesion in the bowel wall or an irritant within the bowel lumen could change the normal peristaltic activity and thus can start the invagination of bowel leading to intussusception. In the case of adult intussusception a malignant tumor of the bowel acting as the apex of intussusception is always suspected; however rarely, a

benign bowel lesion is confirmed to be the underlying cause [2]. In this case, we report a case of adult intussusception in a young woman caused by a colonic lipoma.

CASE REPORT

A 36-year-old Hispanic woman presented with intermittent pain in her left lower abdomen for seven months. The pain was associated with loss of appetite, abdominal distension, and diarrhea. She had no previous illnesses or relevant family history. On physical examination her abdomen was soft and she had tenderness in the left iliac region. Bowel sounds were normal and rectal examination revealed an empty rectum with no sign of bleeding. All routine investigations, including amylase and thyroid function tests, were normal. A computed tomography (CT) scan showed findings of a long segment intussusception of the descending colon into the sigmoid colon with a 3.4 cm lipoma at the distal aspect (Figures 1–3). A Gastrografin follow-through showed complete obstruction to the retrograde flow of contrast around the level of the sigmoid colon (Figure 4). Attempts to reduce the intussusception failed with Gastrografin enema and therefore a sigmoid colectomy was scheduled.

The patient underwent surgery revealing an elongated mass in the sigmoid colon, which was acting as the lead point for intussusception. Sigmoid colectomy with anastomosis was performed. The resected specimen was a yellowish, oval, and broader-based homogeneous tumor, 4x4x3 cm in size, rising from the submucosal layer of the colonic wall. Microscopic examination of the specimen confirmed the diagnosis of a submucosal lipoma composed of mature fat cells with no focal ulceration, and no necrosis of the overlying colonic mucosa. The patient was discharged home five days postoperatively.

DISCUSSION

Intestinal lipomatosis presenting as intussusception is rare with only 46 cases reported in English literature over the last 45 years [3]. In contrast to intussusceptions in children, a demonstrable etiology is found in 70–90% of cases in the adult population [4]. In adults 2/3 of colonic intussusception has resulted from primary adenocarcinoma therefore unconfirmed etiology before operation must be interpreted as cancer [5].

Alipoma of the large intestine is a benign non-epithelial tumor with a reported incidence ranging between 0.2% and 4.4%, representing the second most common benign tumor of the gastrointestinal tract after hyperplastic polyps [6]. Colonic lipomas are generally solitary with only around 6% of cases presenting with multiple colonic lipomas [6]. In approximately 90% of cases the lipoma arises from the submucosa with only 10% being subserosal, extending into the muscularis propria [7].

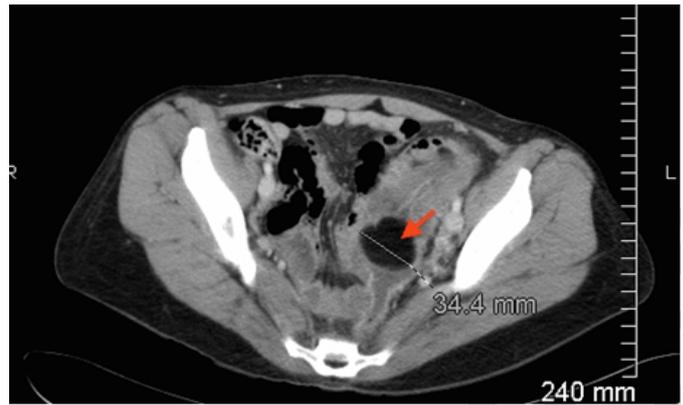


Figure 1: Axial view of abdomen and pelvis computed tomography scan, with contrast, showing intussusception and lipoma with 34.4 mm lipoma indicated.



Figure 2: Coronal view of abdomen and pelvis computed tomography scan, with contrast, showing the lipoma and intussusception.



Figure 3: Sagittal view of abdomen and pelvis computed tomography scan, with contrast, showing the lipoma in the sigmoid colon.



Figure 4: X-ray Gastrografin edema displaying opacification of the rectum and the sigmoid colon, indicating obstruction to the flow of contrast.

The most common location for a solitary colonic lipoma is the ascending colon (45.5%), followed by the sigmoid colon (30.3%), descending colon (15.2%), and transverse colon (9.1%) [6]. Paskauskas et al., found that in their analysis of 31 patients with colonic intussusception by a colonic lipoma only 3/31 (8%) of patients had a similar lipoma in the descending colon intussuscepting into the sigmoid colon like our patient [3].

Not all patients with a colonic lipoma develop symptoms with only 20–25% of patients developing symptoms such as intussusception [3]. A lipoma larger than 4 cm is considered giant and produces symptoms in 75% of cases [3]. The clinical presentation of intussusception by colonic lipoma varies considerably in adults and includes abdominal pain (67–100%), diarrhea (32%), constipation (13%), hemorrhage (22–29%), and vomiting (11–24%) [3].

Intraoperative pathology is the most important examination for cases of intussusception, which directs definitive surgical management. Computerized axial tomography scan (CT) and magnetic resonance imaging (MRI) are the preferred methods of diagnosis as their imaging characteristics are relatively typical for adipose tissue and they provide a rapid diagnosis [8]. The sensitivity for diagnosis of colonic intussusception by CT was found to vary between 58–100% [9]. If the preoperative diagnosis of colon lipoma can be made correctly, the extent of surgery may be appropriately limited [10].

CONCLUSION

In conclusion, definitive treatment for adult intussusception caused by a colonic lipoma should be established on an individual basis.

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Author Contributions

Anthea B. Mahesan Paul – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Abraham Ebenezer Paul – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Andrew Abbiraam Mahesan – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Tarnjot Saroya – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Abhinav Sinha – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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