

Left sided colo-colic intussusception due to large bowel lipoma: A case report

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Abstract: The invagination of a segment of the intestine into the lumen of adjacent segment is called intussusception. The usual direction is from proximal to distal segment. Intussusception is very uncommon in adults and accounts for only 5% of all reported cases and a cause of bowel obstruction in only 1%. Lipomas in the intestinal tract are quite rare and usually asymptomatic, although lipoma larger than 2cms may be a cause of bowel obstruction. It is rare to get a benign lesion, which leads to intussusception on the left side. Here we document a rare case of colocolic intussusception with lipoma as the lead point on left descending colon. The CT was diagnostic and the patient underwent resection and anastomosis of the colon

Keywords: Intussusception, lipoma, CT imaging

I. Introduction

The invagination of a segment of the intestine into the lumen of adjacent segment is called intussusception. The usual direction is from proximal to distal segment. Intussusception is very uncommon in adults and accounts for only 5% of all reported cases and a cause of bowel obstruction in only 1%. (1) Lipoma in the intestinal tract are quite rare and usually asymptomatic, although lipoma larger than 2cms may be a cause of bowel obstruction, leading to intermittent nonspecific abdominal pain, diarrhea or bleeding and sometimes by forming a lead point may precipitate intussusception. (2)

II. Case report

A 55 year old male patient was admitted to the emergency department of meenakshi medical college, kancheepuram, tamilnadu with one week history of lower abdominal pain, bleeding per rectum for past 2 days and abdominal distension after having meal. The pain was gradual, dull in character, localized to left iliac fossa. There was no history of vomiting. He is a known case of diabetes mellitus, on medication for the past 5 years.

At the time of admission, his temperature was 98⁰ F, blood pressure was 140/70 mmHg, pulse 74 beats per minute, respiratory rate 16 breaths per minute and oxygen saturation 99% while breathing ambient air. On examination, he had appreciable bowel sounds with left iliac fossa pain and a palpable mass. Laboratory test were within the normal range.

Contrast enhanced computed tomography (CT) scan was done and showed intussusception of the proximal descending colon into the mid descending colon (fig1,2), due to fatty mass lesion (lipoma)(fig1b) measuring 3.5x2.3cm, with no obstruction. The small bowels were normal in caliber. Based on these findings a diagnosis of colocolic intussusception by submucosal lipoma was made.

Patient underwent exploratory laparotomy that revealed a lipoma as the lead point of intussusception in mid descending colon. The patient underwent resection with anastomosis. The postoperative course was uneventful and he was discharged home after 7 days in good condition.

III. Discussion

Adult intussusception is quite rare, representing only 1-5% of all bowel obstructions. A definable lead point is common in 70-90% of adult intussusceptions. In adults however, intussusception presents with acute, **sub acute** or chronic non-specific **symptoms**. (3,4) Therefore the diagnosis is usually missed or delayed. Adult intussusception most often occurs in the flexible regions of the intestine such as the caecum, the sigmoid colon and the transverse colon. Intussusceptions can be classified into four categories according to location (i) enteric-confined to the small bowel, (ii) colonic –involvement of large bowel exclusively (iii) ileocolic-prolapse of the ileum into the colon through the ileocaecal valve and (iv) ileocaecal-where the ileocaecal valve acts as the lead point, however it can be difficult between the last two in clinical practice. (5)

The majority of intussusceptions occurring in the small bowel are secondary to benign lesions, while colo-colonic cases more likely to have malignant etiology, with adenocarcinoma and lymphoma being the most

common lesions. Benign lesions account for only 30% of cases; responsible lesions include adenomatous polyp, lipoma, haemangioma, neurofibroma and leiomyoma (6). Lipomas are the second most common benign tumors of the colon after adenomas. These tumors are composed of well defined adipose tissue with a clearly demarcated fibrous support structure and most often are sub mucosal in location (7). Within the colon, 50% of lipomas are found in the caecum and in the ascending colon. It is rare to get a benign lesion, which leads to intussusception on the left side at the splenic flexure (rather than flexible region) due to infarcted lipomas.(8)

Intussusception can be diagnosed with help of ultrasound and CT. Abdominal CT is the most sensitive radiological method for diagnosis of intussusception. Imaging shows doughnut shape and bulls eye configuration in the longitudinal and transverse section. Intussusception will appear as sausage shaped mass with layering effect when the CT beam is parallel to its longitudinal axis of the intussusception (7,8,9). On a CT scan, a lipoma manifests as a well marginated spherical or ovoid mass, with fat attenuation.

Colonoscopy may allow direct visualization of lipoma, which can appear as a yellow, smooth mass with pedunculated or sessile **base, characteristic** endoscopic features include the “cushion sign”(forcing the forceps against the lesion results in depression and then restoration of the mass) and “naked fat sign”(fat extrusion during the biopsy)(10)

It is generally accepted that most cases of adult colonic intussusception will require surgical intervention, with en bloc resection without reduction of the affected segment due to the high risk of underlying malignancy, reduction before limited resection may be appropriate for cases of small bowel intussusception where a pre-operative diagnosis of benign etiology can be confirmed (11)

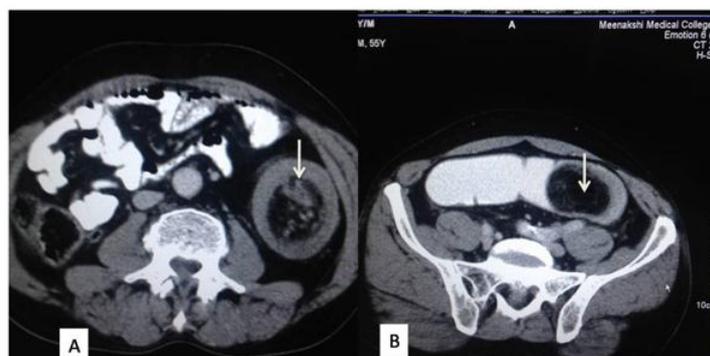
IV. Conclusion

To conclude, it is very rare for adults to get intussusception in the descending colon at the splenic flexure due to lipomas and intussusceptions need not be always caused due to malignancy at this age. Gastrointestinal lipomas are usually asymptomatic; a high index of clinical suspicion and prompt investigations can aid diagnosis with abdominal CT being the most sensitive imaging modality.

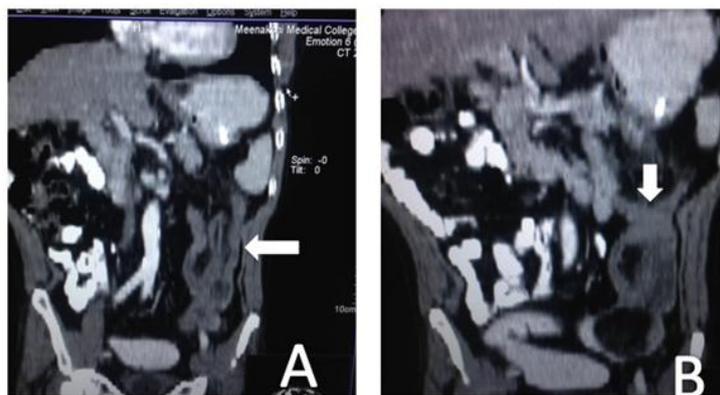
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Figures



Fig(1a)-Axial CT section shows the target appearance(white arrow), typical for intussusception
Fig(1b)-Axial CT section shows a well defined fatty ovoid mass with the colon ,suggestive of lipoma (white arrow)



Fig(2a)-Sagittal CT MPR section shows the sausage shaped mass(white block arrow) ,which consists of both intussusceptum and intussusciens

Fig (2b)-Sagittal CT MPR section shows the colocolic intussuception (white block arrow) in the left descending colon with submucosal lipoma as a lead point