

Ileocolic Intussusception in an Adult Patient due to a Cecal Fecalith

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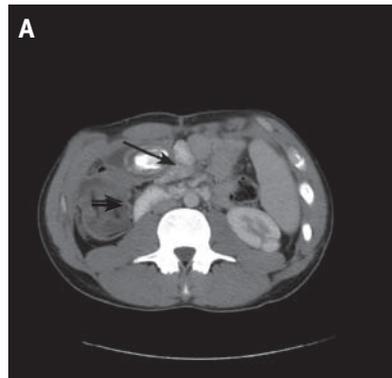
Intussusception is a relatively common cause of intestinal obstruction in children but a rare clinical entity in adults, representing less than 1% of intestinal obstructions in this patient population. The diagnosis of intussusception in the adult is difficult due to the variability of the symptoms. In up to 90% of cases an organic lesion inside the invaginated part of the bowel is found to be the cause of this situation. The majority of these lesions are benign tumors. We present a rare case of ileocolic intussusception caused by a cecal fecalith, which was diagnosed by computed tomography.

PATIENT DESCRIPTION

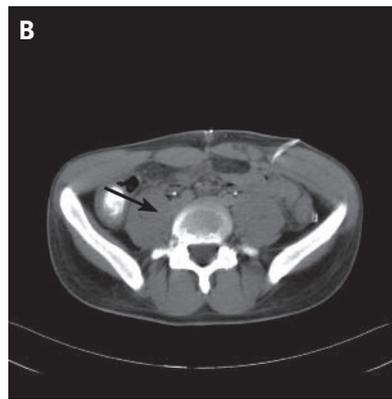
A 21 year old previously healthy male presented with colicky abdominal pain and nausea of 3 days duration. Physical examination revealed fullness and tenderness of the right lower abdomen without signs of peritoneal irritation. Laboratory studies including temperature and complete blood count were normal. Plain abdominal X-ray was normal. Abdominal CT demonstrated a round lesion in the right abdomen consisting of thickened bowel walls with eccentric low density mesenteric fat (short arrow) within it [Figure A], and an intraluminal mass forming a target appearance (arrow). This mass was

diagnosed as a cecal fecalith that had been already demonstrated 3 months previously in a CT scan [Figure B] that had been performed following an abdominal stab wound to the left upper quadrant. Intussusception was diagnosed and an exploratory laparotomy was carried out. An intussusception of the

[A] CT demonstrating a round lesion in the right abdomen consisting of thickened bowel walls with eccentric low density mesenteric fat (short arrow) within it and an intraluminal mass forming a target appearance (arrow).



[B] CT demonstrating an intraluminal mass within the cecum (arrow)



terminal ileum and the cecum into the ascending colon was found and right hemicolectomy was performed due to the intracted bowel. The post-operative course was uneventful and the patient was discharged from the hospital 8 days following surgery. The diagnosis of a fecalith causing an ileocecal intussusception was confirmed by pathology.

COMMENT

The term intussusception refers to a spontaneous invagination of an intestinal segment into another bowel loop. Invagination of small bowel was first described in 1674 by Paul Barbette [1], and the term intussusception was first coined in 1789 by John Hunter. It is a well-known entity in the pediatric population and is considered to be the most common cause of intestinal obstruction, occurring most frequently in infants under the age of 1 year.

Intussusception in adults is a rare entity and challenges the surgeon because of the wide range of issues that need to be considered for establishing the etiology and therapeutic strategy. Intussusception in adults presents with a variety of acute, intermittent and chronic symptoms, thus making its preoperative diagnosis difficult. Unlike children, in whom a specific cause is identified in fewer than 10% of cases, in adults an associated pathology (benign or malignant tumor, inflammation, adhesion, or diverticulum) is found in 90% of cases. Begos et al. [2] in their series found that the majority of adult intussusception cases were of the small intestine, secondary to benign lesions.

Primary or idiopathic intussusception occurred in only 8% to 20% of cases [3]. Primary or metastatic malignant lesions of the small intestine may occur in 6–30% of cases. Among these, metastatic melanomas, carcinomatosis and leiomyosarcomas have been described. When intussusception occur in the large bowel, a malignant etiology is more frequent. Adenocarcinoma is the leading cause.

Review of the literature did not reveal any description of ileocolic intussusception caused by a cecal fecalith. Intussusception may be enteric, ileocolic, ileocecal, or colonic. Several possible mechanisms have been proposed to explain this situation: a) a tumor may act as a foreign body causing violent peristalsis, so that the central part of the bowel easily moves into the dilated distal part; b) intussusception may be due to altered muscle function caused by a tumor or bowel paralysis; and c) a tumor may be grasped and pulled forward by traction. Because of the high likelihood of associated bowel pathology, surgical intervention in adults is

mandatory. Early diagnosis is essential to avoid a delay in treatment, which can increase morbidity and mortality. In the early 20th century, Ladd [4] published the first illustration of a diagnostic contrast enema in a child with intussusception and suggested that this would be a useful diagnostic procedure. Nordentoft [5] reported 500 patients, indicating the value of barium enema in the diagnosis and treatment of intussusception. With advances in radiology, diagnosis of adult intussusception can be made reliably with non-invasive imaging techniques. The use of CT as the first imaging modality in the evaluation of patients with abdominal complaints has greatly expanded over the last few years. CT is now considered to be the modality of choice for the diagnosis of intussusception in adults, but ultrasound and magnetic resonance imaging have also been used effectively. In our case CT accurately suggested ileocecal intussusception caused by an intraluminal lesion.

In conclusion, cecal fecalith is an extremely rare cause of ileocolic intus-

susception. Diagnosis can be determined radiologically and CT remains the method of choice. Surgical treatment and resection of the involved section of the bowel permanently resolves the problem.

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