Colocolic adult intussusception: a case report
Published on 04.09.2009

DOI: 10.1594/EURORAD/CASE.7791
ISSN: 1563-4086
Section: Abdominal imaging
Case Type: Clinical Cases
Authors: Morais F, Leitão J, Vitor L, Távora I.
Patient: 32 years, female

Clinical History:

A young woman was admitted to the hospital for rectal bleeding, proctalgia and sensation of “rectal prolapse”. Her medical history included status pos-appendectomy, Crohn’s disease, and chronic constipation. Colonoscopy revealed a "polypoid lesion". Abdominal CT revealed bowel-within-bowel with contained mesenteric structures, (colic intussusception) caused by intraluminal lipoma.

Imaging Findings:

A 32 year old white woman was admitted to the hospital after third time of rectal bleeding, proctalgia and sensation of “rectal prolapse”. She also complained about abdominal pain. Her medical history included appendectomy in 2004, when the diagnosis of Crohn’s disease was also established, and chronic constipation. Her physical examination revealed distended abdomen and painful on deep palpation in the lower quadrants, more pronounced on the left. In the blood analysis we pointed leukocytosis with neutrophilia and slightly augment of CRP (1.2 mg/dL).

Colonoscopy was performed and the progression of the colonoscope was not possible beyond 40cm because of torsion of the colon. A lobulated polypoid lesion of about 15 cm length was seen. Abdominal CT scan was performed revealing pathognomonic bowel-within-bowel with contained fat and mesenteric vessels, compatible with intussusception (Fig 1a,b). A well circumscribed, solid, homogeneous intraluminal tumour was demonstrated and negative CT density values of the lead point lesion were consistent with fatty tissue (lipoma) (Fig 2a). The fatty tumour was located in the distal sigmoid (Fig 2a,b) causing pre-stenotic dilatation of the large bowel (Fig 3). We also reported a thick wall bowel loop (distal ileum) surrounded by creeping fat in relation with known Chron’s disease (Fig 2). The patient underwent partial enterectomy and pathology diagnosed large bowel lipoma (Fig 4a-c).

Discussion:

Intussusception is the invagination of proximal intestinal bowel loop and its mesenteric fold (intussusceptum) into the lumen of contiguous portion of distal bowel loop (intussuscipiens) as a result of peristalsis. It can be classified according to location (enteroenteric, ileocolic, ileo-cecal or colocolic), cause (benign, malignant or idiopathic) and whether a lead point is present. Intussusception is one of the most common causes of bowel obstruction in infants and toddlers and is most often (80%) ileocolic. Most children (95%) do not have an identifiable specific lead point. In these idiopathic cases, careful examination may reveal hypertrophied mural lymphoid tissues (Peyer patches), which are usually due to adenovirus or rotavirus. A specific lead point is identified in only 5% of cases and is most commonly found in ileoileal intussusception. In infants aged 6 months to 2 years, intussusception is not unusual and often follows an upper respiratory tract infection or gastroenteritis and apparently is associated with seasonal peaks (spring, summer and winter).

Intussusception in adults is rare, accounting for approximately only 5% of all intussusceptions, causing only 1% of all
bowel obstructions. About 90% of cases have a demonstrable cause such as neoplasia (approximately 65% of the cases) or postoperative condition. Malignant tumours are more common (about 70% of the cases) than benign tumours in colon, although the reverse is true to the small bowel. It is believed that masses in the intestine act as "irritant" and provoke abnormal peristaltic movement which may lead to the telescoping of one bowel segment over the adjacent. Often in intussusception with a lead point, there is a prior history (weeks-months) of episodic abdominal pain, nausea and vomiting, symptoms that suggest partial intestinal obstruction and rarely manifests with acute abdomen. It may also manifest with symptoms related to a neoplastic process such as palpable mass, melena, weight loss or constipation, more frequent in large bowel intussusception. Intussusception is well diagnosed in CT, which shows a pathognomonic bowel-inside-bowel with or without fat and mesenteric vessels, and appears as a "sausage-shaped" mass or as "target like" according to CT beam is parallel or perpendicular to its longitudinal axis, respectively. The presence of a lead point, morphology of the leading mass, the degree of mural oedema and the amount of invaginated mesenteric fat, affect the appearance of an intussusception making the identification of the intussusception lead point difficult. More than one-half of colic intussusceptions are associated with malignant lesions (primary adenocarcinoma or lymphoma or secondary (metastasis of melanoma, osteosarcoma, breast or lung cancer)). Less than 30% are associated with benign lesions (lipoma, adenomatous polyps, GIST, endometriosis or iatrogenic (prior anastomosis)). Lipomas are the most common benign cause of colocolic intussusception in adults. Most (90%) are within the submucosa, are usually solitary and may be sessile or pedunculated. Lipomas are often discovered incidentally (endoscopy or radiologic examination) and can be easily diagnosed with CT due to their typical fat attenuation. Usually they are asymptomatic provoking abdominal pain when they are responsible for intussusception.

**Differential Diagnosis List:** Colic intussusception caused by large bowel lipoma.

**Final Diagnosis:** Colic intussusception caused by large bowel lipoma.

**References:**


Figure 1

a

Description: bowel-within-bowel-configuration with fat and mesenteric vessels. Origin:

b

Description: Intussusception as "sausage-shaped" mass (CT beam is parallel to its longitudinal axis). Origin:
**Figure 2**

a

**Description:** Segmental thickened wall of distal ileon and some fibro-fatty proliferation of the adjacent fat

b

**Description:** Lead-point of intussusception has negative CT values compatible with lipoma as cause of telescopic movement of proximal segment of the bowel within the distal segment of the bowel

**Origin:**
Description: Colic distension caused by distal colocolic intussusception Origin:
Figure 4

Description: Origin:

Description: Origin:
Description:  Origin: