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Submitted: 26 Apr 2012

Accepted: 4 Jul 2013

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Abstract

Ileocaecal intussusception is a common cause of acute intestinal obstruction presenting as a surgical emergency. We report a case of amoebic colitis in a 62 years old man complaining of acute colicky pain in the right iliac fossa, associated with a three-day history of constipation but no other gastrointestinal tract symptoms. There was rebound tenderness on palpation of the right iliac fossa. Ultrasound scans revealed free fluid and a loop within a loop image in this area. At laparotomy, we discovered an ileocaecal intussusception associated with a gangrenous caecum. A right hemicolectomy was performed with satisfactory outcome. The final diagnosis of amoebic colitis was obtained post-operatively using serology and pathology. This rare aetiology must be considered in patients with acute pain in the right iliac fossa in the tropical regions. Tropical surgeons must be aware of this scenario before they label a case of intussusception as idiopathic. The identification and treatment of invasive amoebic infection may reduce the recurrence of idiopathic intussusception.

Keywords: amoebic, intussusception, ileocaecal, colitis, idiopathic

Introduction

The presentation of amoebic infestation as an acute abdomen is a common surgical emergency in tropical countries. Between 4% and 10% of patients with amoebiasis develop an invasive form of the condition which may require surgery in the form of an exploratory laparotomy (1). Intraoperatively these patients are found to have complications of amoebic infection such as perforation, hemorrhage, typhlitis, appendicitis, amoeboma or a ruptured abscess. Iliocolic intussusception is an extremely rare presentation of acute invasive amoebiasis presenting as acute abdomen.

Case Report

A 62 years old gentleman presented as a surgical emergency with a history of severe, acute colicky pain on the right side of his abdomen for 3 days. The pain was episodic, non-radiating and associated with a low grade intermittent fever. The patient gave a 24 hours history of obstipation with no history of melena, preceding diarrhoea, abdominal distension, nausea or vomiting. There was no history of contact with tuberculosis or any other significant past medical history. On examination, the patient was conscious and oriented with a pulse rate of 104 per minute and a blood pressure of 96/60 mmHg. There was marked

abdominal tenderness in the right iliac fossa, along with guarding and rebound tenderness. Blood tests showed marked leukocytosis (16100 cm^{-3}) and a mildly abnormal serum creatinine (1.3 mg/dL). The patient was resuscitated with intravenous fluids and antibiotics. The differential diagnosis was acute appendicitis, appendicular perforation, ileal perforation or caecal perforation following malignancy and an ultrasound scan showed free fluid and a "loop within a loop" image in the right iliac region suggestive of intussusception and bowel perforation.

On exploratory laparotomy the cause was confirmed to be iliocolic intussusception with gangrene of the caecum on the anterolateral wall (Figure 1). The omentum was adhered to the anterior wall of the caecum along with a few enlarged lymph nodes. The rest of the bowel and viscera were grossly healthy. A thorough lavage was performed and a limited right hemicolectomy performed along with diversion of the bowel as an end ileostomy with distal mucous fistula.

The post-operative period was uneventful and the patient recovered well. Post-operative amoebic serology tests were positive. Examination of the specimen showed numerous ulcers in the ileum and at the lead point of the intussusception. Ulcers with acute necrotising inflammation were also noted in the caecum. The histology revealed acute ileal inflammation with entrapped amoebic trophozoites, mononuclear cells and histiocytes.

No granuloma could be identified in the biopsy specimen. The lymph nodes showed acute inflammatory reaction and were negative for tuberculosis.

Discussion

An amoebic liver abscess is the most common cause of an acute abdomen with a parasitic etiology (1). However, intussusception as a result of parasites rarely causes an acute abdomen. The most common etiology of parasitic intussusception presenting as acute abdomen is *trichocephalus*.

Amoebic intussusception is a very rare presentation of invasive intestinal amoebiasis. Invasive intestinal amoebiasis, in the form of colonic amoebiasis and its complications, are well-documented but ileal amoebiasis has not been frequently described in the literature (3). In a study of 76 cases of intussusception by Rasaretnam et al. it was suggested that amoebic granuloma can be the predisposing cause of caecocolic intussusception, accounting for its chronic nature in such cases. Gangrene is found to occur rarely in these cases (4). Ulcer, localised edema, and granulomas may all be the cause of the intussusception. Amoebic granulomas are the usual cause and colocolonic intussusception is the commonest form of amoebic intussusception described. Ileal involvement is rare with only a few cases reported from the Asian continent (5).

Early diagnosis of this condition is important as adequate antiamoebic therapy may even remove the need for surgery (6). However, pre-operative diagnosis is difficult in most cases. The final diagnosis is usually evident on histopathology

only after surgery as been performed. Resection of the bowel offers the best chance of cure but it must be remembered that any incision into tissues containing amoebae carries the risk of infection with sloughing due to tissue damage. Bowel resections carry a high risk of suture-line dehiscence in particular and it is therefore essential that a proximal defunctioning colostomy or ileostomy is created (7).

Between 8% and 20% of cases of intussusception in the adult population are considered to be idiopathic, without a well-defined cause (8). Before such cases are labelled idiopathic one must also investigate the possibility of amoebiasis as the underlying cause especially in tropical countries where amoebiasis is rampant. Since a large number of intussusceptions are recurrent, especially when managed conservatively, identification of amoebiasis and its treatment may reduce the chances of recurrence and subsequent morbidity and mortality.

Conclusion

Amoebiasis is a common intestinal infection which can rarely present as an iliocolic intussusception. The cause form of ulcers or inflammatory edema may not be appreciable intraoperatively but is subsequently revealed on histopathology. Considering how common amoebic infestation is, especially in the tropics this etiology must be ruled out before labelling an intussusception as idiopathic.

Acknowledgement

None.

Conflict of Interest

None.

Funds

None.

Authors' contributions

Conception and design, analysis and interpretation of the data and drafting of the article: RT

Critical revision of the article for the important intellectual content: SKJ, LB

Final approval of the article: DKJ

Provision of study materials or patient and administrative, technical or logistic support: LB

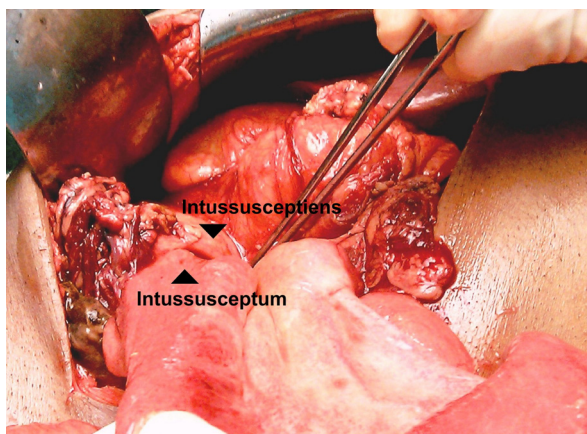


Figure 1: Intraoperative photograph showing ileocaecal intussusception.

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