



CASE STUDY

ASCARIASIS: A CAUSE OF BOWEL OBSTRUCTION IN MOROCCAN CHILDREN ASCARIASIS OBSTRUCTION

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ABSTRACT

Ascariasis is the largest and most prevalent human helminthes. It's more frequent in underdeveloped countries because of poor hygiene and low socio economic conditions. Ascaris can lead to hepatic, pancreatic and intestinal complications. Intestinal obstruction is more frequent in children. We report two cases of ascariasis infestation presented with bowel obstruction. Both patients were from rural area. Because of the volvulus with necrosis of ileal loop, the first patient underwent an intestinal resection with end to end anastomosis. The second patient was diagnosed first as an appendicular peritonitis; it's during surgery that we discover the presence of an intestinal blockage with parasite. His management was more conservative: jejunum enterotomy was performed and the worms were removed. Both patients receive albendazole in the post operative course, with satisfaisant clinical evolution. Pediatrician should be aware of the abdominal complications; an early recognition of this condition can prevent serious complications, morbidity and mortality.

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INTRODUCTION

Ascaris lumbricoid is the largest and most prevalent human helminthes. To our knowledge, there is no reported same case in our country (Morocco). In this paper we report two cases

Case report 1: A 2 years old girl, presented with abdominal distension, bilious vomiting and no passage of stool and gas for last 3 days. The girl lived in a rural area with no sewer service at home. She was afebrile, with abdominal distension (Fig.1). The hemodynamic condition was stable. Patient was rehydrated. An abdominal X-ray has shown multiples air fluid levels, suggestive of obstruction, with many calcifications in the abdomen and pelvis (Fig.2). Surgical management was scheduled, the abdominal exploration found a volvulus with necrosis of ileal loop containing a large number of ascaris. An intestinal resection was performed with end to end anastomosis (Fig.3). Patient was under Albendazole after restarted peristalsis. Post operative period was uneventful. The patient was discharged home.

Case report 2: A 4 years old boy, living in a rural area, was presented with signs of abdominal obstruction. On the examination we found a diffuse abdominal tenderness. He was

afebrile. The cells blood count shows a leucocytosis at 11000 elements /mm³. Multiples air-fluid levels were showed at the abdominal X-ray (Fig.4). The ultrasound showed an effusion of the pouch of Douglas and between intestinal loops. The diagnosis of an appendicular peritonitis was made. A surgical exploration showed the presence of an intestinal blockage due to the parasite. A jejunum enterotomy was performed and the worms were removed. The postoperative course was uneventful. Anthelmintic drug was administered.

DISCUSSION

Over 1.2 billion people are infested with ascariasis, which constitute 2.5% of world population (Baba *et al.*, 2009). Massive infestation due to ascariasis can give rise to serious complications especially in children between 3 and 4 years old like intestinal necrosis or intestinal obstruction (Andrade *et al.*). It has been estimated 2 per 1000 ascaris-infected children per year (Nagotkar *et al.*, 2010). It's a serious disease with a high mortality especially if treatment is delayed. Obstruction commonly occurs at the terminal ileum although large number of worms found in the jejunum (Andrade *et al.*). Abdominal radiograph can reveal several loops of moderately distended small bowel loops, evidence of multiple air fluid level and shadow of round worms (Lopez *et al.*, 2010).

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Fig.1. Abdominal distension



Fig.2. Abdominal X-ray showing multiples air fluid levels, suggestive of obstruction with calcifications



Fig.3. Gross specimen showing: a necrotic ileal loop with the bolus of ascariasis



Fig.4. Abdominal X-ray: air fluid levels

Ultrasound confirms the diagnosis by the presence of typical image of ascaris. In our case ultrasound was not be available to be performed. If the obstruction is early recognized, it could be managed successfully without major intestinal surgery (Lopez *et al.*, 2010). In a case of necrosis an intestinal resection with entero-enteroanastomosis is performed (Hefny *et al.*, 2009). The antihelminthic drugs are given post operatively and should be repeated after 6 weeks. The improvement of health education and sanitation can contribute to the reduction of parasitic load. Pediatrician should be aware of the abdominal complications; an early recognition of this condition can prevent serious complications, morbidity and mortality.

Conflict of interest: None

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