Case report

Acute large bowel obstruction due to *Ascaris lumbricoides* in a child from Sri Lanka

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**Abstract:** Acute large bowel obstruction due to *Ascaris lumbricoides* is uncommon. Here we report a 4 year old girl presenting with acute left colon obstruction due to *A. lumbricoides*. She was managed conservatively with a hypertonic saline enema and anthelmintics and responded favourably. Early diagnosis and treatment are essential to minimize morbidity and mortality.

**Key words:** Acute large intestinal obstruction, left colon, anthelmintics

**INTRODUCTION**

Clinical manifestations of ascariasis are diverse and range from acute life threatening complications such as intestinal obstruction to more subtle manifestations associated with malnutrition. Here we report a rare case of acute left colon obstruction due to *A. lumbricoides*.

**CASE REPORT**

A 4 year old female child from Badalkumbura in the Monaragala District of Sri Lanka presented with diffuse abdominal pain, abdominal distension and absolute constipation of 3 days duration. She had no vomiting on admission, although interestingly she had a history of vomiting a large worm 5 days prior to developing these symptoms. On examination her hydration was satisfactory. The abdomen was grossly distended. She was tender in the left iliac fossa but there were no clinical features of peritonitis. Rectal examination revealed an empty rectum.

Routine blood test results were within normal limits. The abdominal X-ray (Figure 1) revealed a grossly distended colon from the caecum down to the descending colon. No distended small bowel loops were visible. An ultrasound scan of the abdomen confirmed the presence of distended bowel loops and the absence of free fluid in the peritoneal cavity but was otherwise unhelpful.

After adequate resuscitation, she was given a hypertonic saline enema in view of the fact that she had vomited a worm (description suggestive of *A. lumbricoides*) just a few days previously. After the enema the child passed approximately 50-75 large *A. lumbricoides* worms knotted tightly in balls (Figure 2). Following this, the child's symptoms settled and she was treated with mebendazole and dis-
charged two days later on laxatives (Figure 3).

**DISCUSSION**

*A. lumbricoides* is the largest intestinal nematode parasite infecting humans. The adult worms usually inhabit the small intestines of humans, and obstruction generally occurs in the small intestine [1], predominantly the terminal ileum [2]. Instances of appendicitis and caecal masses due to ascariasis [3] as well as rare ileo-sigmoidal knotting in children [4] have been documented. However, *A. lumbricoides*-induced acute large bowel obstruction is very uncommon [5].

The diagnosis of *A. lumbricoides* with plain abdominal X-rays showing a “whirlpool” pattern of intraluminal worms has been described previously [3]. However, the X-ray of our patient showed typical features of acute large bowel obstruction only. Barium enema has also been reported to be useful in diagnosing large bowel obstruction due to *A. lumbricoides*, where the cause of obstruction was demonstrated as contrast-filled defects in the colon [5].

The use of hypertonic saline enema has been shown to be safe and effective for conservative treatment of gastrointestinal ascariasis in children [2, 6]. Hypertonic saline irritates the worm bolus causing it to disintegrate. A hypertonic saline enema was considered in our patient as she did not have any signs of peritonitis and because the clinical history was suggestive of ascariasis. However, surgery would have been warranted if the child did not respond to this conservative approach or had developed signs of peritonitis [1]. The World Health Organization recommends mebendazole, albendazole, pyrantel pamoate and levamisole for the treatment of intestinal nematode infections [7]. This child was treated with mebendazole and showed a good response.

Although recent surveys conducted in many areas of Sri Lanka have revealed a decline in prevalence of soil-transmitted nematode infections [8], it needs to be borne in mind that foci of infection still remain in parts of the island where socio-economic conditions are poor and latrines are absent. Early diagnosis and treatment are essential to minimize morbidity and mortality.

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**REFERENCES**
