

EDITORIAL

INTESTINAL OBSTRUCTION DUE TO ASCARIS LUMBRICOIDES, CASE REPORT

Mohammed Suror ¹ (MD1, MRCS2), **Elhadi Miskeen** ² (MRCOG 1), **Rehab Almushly** ³ (MD), **Muowya Albalal** ⁴ (MD), **Elhasan M.Elhasan MD** ⁵ ,**Nasr Eldin Yousif MD** ⁶ , **Mohamed Imam MD** ⁷ , **Sami Eldirdiri** ⁸ (MD),

1. Registrar of Surgery, Faculty of Medicine , University of Gezira Sudan
2. Registrar of Obs/Gyn , University of Gezira Sudan
3. Assistance Professor of Surgery, University of Gadarif Sudan
4. Assistance Professor of Medicine, University of Gezira Sudan
5. Associate Professor of Obs/Gyn, University of Gadarif Sudan
6. Assistance Professor of Medicine , University of Gezira Sudan
7. Professor of Surgery , University of Gezira , Sudan
8. Associate Professor of Surgery , University of Algardarif , Sudan

CORRESPONDANCE: Dr.Elhadi Miskeen, Faculty of Medicine, University of Gezira Sudan. P.O.Box 20, E-mail:

hadimiskeen19@yahoo.com



INTRODUCTION

Ascaris lumbricoides, an intestinal roundworm, is one of the most common helminthic human infections worldwide ⁽¹⁾. It is estimated that more than 1.4 billion people are infected with *A. lumbricoides*, representing 25 percent of the world population ⁽²⁾. The highest prevalence of ascariasis occurs in tropical countries where warm, wet climates provides environmental conditions that favor year-round transmission of infection. This contrasts to the situation in dry areas where transmission is seasonal, occurring predominantly during the rainy months ⁽³⁾. The prevalence is also greatest in areas where suboptimal sanitation practices lead to increased contamination of soil and water. The majority of people with ascariasis live in Asia (73 %), Africa (12 %) and South America (8 %), where some populations have infection rates as high as 95 % ^(4, 5).

The majority of infections with *A. lumbricoides* are asymptomatic. However, the burden of symptomatic disease worldwide is still relatively high because of the high prevalence of disease. Clinical disease is largely restricted to individuals with a high worm load ⁽¹⁾.

A mass of worms can obstruct the bowel lumen in heavy *Ascaris* infection, leading to acute intestinal obstruction ⁽⁶⁾. The obstruction occurs most commonly at the ileocecal valve. Symptoms include colicky abdominal pain, vomiting and constipation. Vomitus may contain worms. Approximately 85 % of obstructions occur in children between the ages of one and five years. Sometimes an abdominal mass that changes in size and location on serial examinations may be appreciated ⁽⁷⁾. Complications including volvulus, ileocecal intussusception, gangrene, and intestinal perforation occasionally result.

The overall incidence of obstruction is approximately 1 in 500 children. In endemic areas, it has been shown that between 5 and 35 % of all cases of bowel obstruction are due to ascariasis ⁽¹⁾. One review estimated the worm burden with intestinal obstruction to be > 60 (and ten times higher in fatal cases) ⁽⁸⁾.

CASE REPORT

A lady of 28 years old admitted to Gadarif Teaching Hospital complaining of abdominal pain and nausea for three days. Review of her history revealed that the condition started 3 days prior to admission with para-umbilical pain, shifted to right iliac fossa, associated with nausea, but no vomiting. The patient also complained of anorexia since the start of her disease, and did not pass faeces for 2 days. There is a past medical history of colicky abdominal pain 4 months ago. The patient noticed that the colic is usually associated with appearance of mobile abdominal mass that disappears after the attack of the colic. 8 days prior to admission the patient developed bloody stool stopped spontaneously.

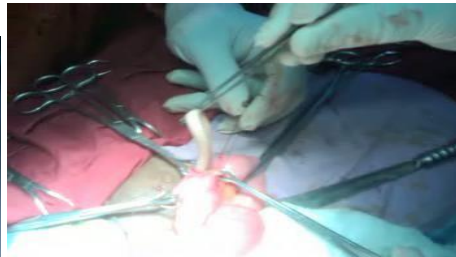
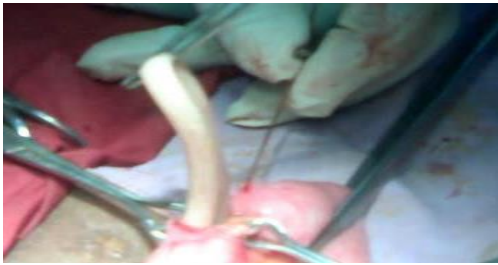
General examination showed that she looks ill, febrile, in pain, not pale, jaundiced nor cyanosed. The vital signs within normal ranges. Abdominal examination revealed; flat umbilicus, no scars, no

organomegaly. There was right iliac fossa tenderness, positive rebound tenderness, obturator and psoas signs. Other systems were normal (including cardiopulmonary, central nervous system and musculoskeletal)

Haemoglobin estimation was found to be 70 %, TWBC 6500, lymphocytes 40 % and urine analysis was normal.

Diagnosis of acute appendicitis was established and so appendicectomy was done. The *intra-operative findings* revealed that the appendix was not inflamed and was dissected. Then we followed the ileum proximally for the cause and we felt an abnormal worm like sensation. Enterotomy was done 60 cm from the ileocecal junction, and then we removed a large amount of *Ascaris lumbricoides* (Image 1). Then we followed the small bowel up to the duodenum and all worms found were removed by squeezing from the duodenum up to the opening. Two days post-operatively the patient developed an attack of right hypochondrial colic. On examination there was a palpable tender gall bladder.

Ultrasound revealed no abnormality. At that time the pain and the swelling disappeared completely. She received Albendazole tabs. Two days later she passed a huge amount of dead worms. The patient was discharged in a good condition after five days of hospital stay.



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DISCUSSION

This is the first time to report a case of intestinal obstruction due to ascariasis in our hospital. The patient is 28 years old. Although occurs at all ages, it is most common in children 2 to 10 years old, and prevalence decreases over the age of 15

years. Infections tend to cluster in families, and worm burden correlates with the number of people living in a home ⁽⁹⁾.

As mentioned in the case, the symptoms and signs were more suggestive of acute appendicitis, apart from the past history of the abdominal colic and the mobile mass. This can be explained by that, the intestinal obstruction was subacute in the last attack of the disease, so the picture of intestinal obstruction was not complete.

In our case, we mentioned that, two days post-operatively the patient developed an attack of right hypochondrial colic and there was a palpable tender gall bladder; and these were resolved spontaneously. This can be explained by a transient obstruction of the common bile duct by the worm. This is a rare presentation of infestation with *A. lumbricoides*. It represents percent of all pancreatic-biliary ascariasis ⁽¹⁰⁾.

Ascariasis is said to be the most common cause of acute abdominal surgical emergencies in certain countries including South Africa and Myanmar ⁽⁵⁾. In a recent meta-analysis of morbidity and mortality related to ascariasis, intestinal obstruction accounted for a mean of 72 percent of complications of the infection ⁽⁸⁾.

The management to the patient was good and the outcome was satisfactory.

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