



A RARE CASE OF ASCARIASIS WITH SUBACUTE INTESTINAL OBSTRUCTION

General Surgery

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ABSTRACT

More than 1.2 billion infections of *Ascaris lumbricoides* and ascariasis have been recorded worldwide. It is a leading cause of increased morbidity and mortality in sub-Saharan Africa, America, China, and East Asia, and occurs primarily in tropical and subtropical environments. Long-standing ascariasis cases in which the adult worms are big enough to cause intestinal obstruction may require surgical intervention.

KEYWORDS

Ascaris lumbricoides, subacute intestinal obstruction, surgery.

INTRODUCTION

one of the most famous helminthic parasites affecting humans is *Ascaris lumbricoides*, and ascariasis is still widespread, with more than 1.2 billion infections worldwide. It is widespread in the Middle East and South America, Especially in developing countries, where a lack of sanitation is the leading cause of disease. [1-3]. Although it can affect people of any age, *A. lumbricoides* infections are more common in young children. [4]. Even though ascariasis infections are typically asymptomatic, the illness causes malnutrition in children and kills between 3000 and 60 000 people annually, typically due to intestinal blockage. [5-7]. The intestinal blockage brought on by a clumped-together The most well-known serious and fatal complication of *A. lumbricoides* infection is a mass of *A. lumbricoides* worms that can manifest as an acute or subacute condition. [8]. Ultrasonography is useful for the early detection of intestinal obstruction brought on by *A. lumbricoides* to prevent its fatal and catastrophic consequences but CECT abdomen and pelvis is the gold standard in imaging for operative decision-making [9-12]. It is a helminth that spreads through the soil and In the duodenum, eggs hatch into larvae that reach the liver and lungs by the sixth or eighth day. By the eighth or tenth day, the alveolar barrier has been compromised, and the worms have expectorated and returned to the digestive tract, where they develop into adults and pass through the mouth, nose, or ear. They achieve sexual maturity on day 24. females lay 200,000 eggs daily, and the worms can reach a length of 15 to 30 cm [13].

Anti-parasitic medications such as albendazole, mebendazole, or pyrantel pamoate can be used successfully to treat the majority of instances of simple ascariasis. [14,15]. Surgical intervention can be used to treat complex ascariasis instances.

CASE PRESENTATION

A 70-year-old female came to our surgery O.P.D. with complaints of pain in the abdomen for 15 days. The pain was insidious in onset, gradually progressive in nature, and localized to the hypochondrium and bilateral iliac fossa. It was intermittently aggravating on taking meals and with no relieving factors. The patient also complained of an inability to pass stools and a past constipation history in the last 3 months. The patient has a history of 3 episodes of vomiting, which was a bilious type, and a history of abdominal distension, with no history of trauma, cough, or breathlessness. The general examination was normal. On examination abdomen was distended and non-tender, with no guarding, rigidity, distension, and bowel sounds sluggish involving the umbilical region.

Blood investigations (complete blood count, liver function test, kidney function test, urine routine and microscopy, HbA1c, Random blood sugar, coagulation profile, and Virology reports) were normal. C.E.C.T. abdomen was done, and suggestive of small bowel

obstruction, a ball of worms (ascariasis) in the ileum caused the obstruction (Figure 1) and (figure 2).

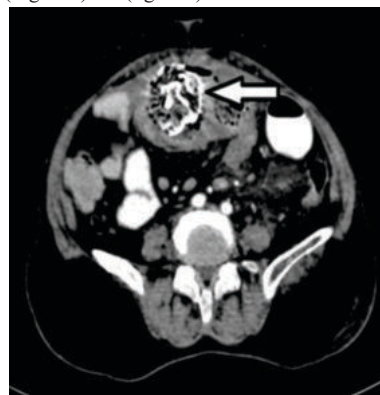


Figure 1: CECT Abdomen Pelvis axial cut (arrow) Bag of worm in segment of Ileum showing dilatation

DISCUSSION

The results of the laparotomy determine the type of surgery. If the intestine is still functional and the obstruction is at the ileum level, it is possible to delicately milk the worms to the caecum without damaging the gut wall. [16].

Suppose there are several masses, and the obstruction is located in the jejunum. In that case, The worms should be removed using sponge-holding forceps after the enterotomy is performed through a longitudinal incision. To prevent worms or their eggs from contaminating the peritoneal cavity, the incision should be closed transversally with extreme caution. When the intestinal wall is fragile, such as in volvulus, milking should be avoided to avoid serosal rips. In such cases, an enterotomy is preferable. It is best to avoid breaking the worms while milking them because this may cause toxins to be released. In cases of intestinal gangrene, perforation, or intussusception with a non-viable bowel, resection with primary anastomosis may be required. [17,18].

The parasite infection ascariasis is common throughout the world, although it is more prevalent in tropical and subtropical areas where human excreta is often disposed of in an unhygienic way. Adult worms migrate and can cause severe clinical issues such as acute pancreatitis, acute cholecystitis, liver abscess, intestinal obstruction when many, and even perforation [19].

In our situation, several aberrant during a laparotomy, and the small

intestine's contents had been found. Thus, enterotomy was carried out to remove the worms following meticulous milking of the worms. Early detection of the condition and surgical treatments are crucial to reducing the high morbidity and mortality of complex ascariasis. To reduce the risk of infection, ascariasis awareness and related preventive actions should be taught to schoolchildren and their mothers as part of all health education programs.

Infections caused by lumbricoides are spread through the consumption of embryonated eggs from raw vegetables, contaminated water, or contaminated hands. Fertilized eggs start hatching in the intestine. Before reaching the alveoli, the larvae enter the pulmonary circulation, the right side of the heart, and the intestinal wall. The host coughs up the larvae, which are then ingested back into the colon, where they mature into adult worms. [20,21]. Depending on the parasite burden, an *A. lumbricoides* infection's clinical characteristics range from asymptomatic to symptomatic disease. The signs of the illness are largely unnoticeable in people with a high worm load. Either larval migration or the adult worm's intestinal stage causes the symptoms. The larval movement through the lungs causes ascariasis to develop in the lungs. Abdominal pain, anorexia, nausea, and diarrhea are common symptoms of severe *A. lumbricoides* infection. Severely infected children experience protein malnutrition and vitamin A insufficiency [22-25]. Significant gastro-intestinal bleeding with ulceration, perforation, and even gut wall necrosis is a rare, fatal outcome. In any patient with intestinal blockage, roundworm obstruction needs to be the first differential diagnosis. Because the clinical signs and symptoms of a lumbricoides infection make it clear that you are in a region where the disease is common. An acute abdomen often results from lumbricoides.

CONCLUSION

Ascariasis is a rare condition which can cause intestinal obstruction in long-standing cases. early diagnosis of the condition leads to decreased mortality and morbidity. we are presenting this case to focus on rare pathology. we hereby advise fellow surgeons to include this pathology in differentials while dealing with such cases. this will help decrease the disease load in the society.

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