

Ascaris Lumbricoides Leading To Peritonitis: A Case Report

Ajay Anand, Singh Sarabjit, Sahni Ajaydeep Singh

Abstract

Ascaris lumbricoides is the most common helminthic infection affecting humans. It may remain asymptomatic, present as intestinal obstruction or in rare cases as gut perforation with peritonitis mimicking granulomatous peritonitis.

Key Words

Ascaris Lumbricoides, Peritonitis

Introduction

Ascaris lumbricoides is the most common helminth affecting humans. (1) infecting about a quarter of the world's population, with estimates of over a billion infections, 12 million acute cases, and 10,000 or more deaths annually. Prevalence is high wherever there is poor hygiene and sanitation or where human feces are used as fertilizer. Infection follows ingestion of eggs in contaminated food. Larvae hatch in the small intestine, penetrate into the bloodstream, migrate to the lungs, and then via airways back to the gastrointestinal tract, where they develop to adult worms, which can be up to 40 cm in length, and live for 1–2 years. Light intestinal infections usually produce no symptoms. With heavy infection, abdominal discomfort may be seen. Adult worms may also migrate and be coughed up, vomited, or may emerge through the nose or anus. They may also migrate into the common bile duct, pancreatic duct, appendix, and other sites, which may lead to cholangitis, cholecystitis,

pyogenic liver abscess, pancreatitis, obstructive jaundice, or appendicitis. With very heavy infestations, masses of worms may cause intestinal obstruction, volvulus, intussusception, or death.

Ileal perforation due to typhoid bacilli is the commonest cause of peritonitis in the tropics. Perforation due to *ascaris lumbricoides* is rare. Heavy infestation with *ascaris lumbricoides* makes a diagnosis of intestinal perforation more likely in a patient with acute abdomen. (2)

Case Report

A-27-year old female presented with pain abdomen of 3 days duration with past history of passing worms with stools. She had clinical features of peritonitis. Plain x-ray abdomen revealed gas under diaphragm. Ultrasound abdomen revealed intraabdominal collection with two worms lying in left paracolic space. Laparotomy was performed. Matted gut with ileal perforation with two

From the Postgraduate Department of Surgery Government Medical College Hospital, Jammu J&K India

Correspondence to : Dr. Ajay Anand 32-B/B, Gandhi Nagar Jammu Tawi-180004 J & K State-India

Fig. 1 Showing Ascaris Lumbricoides Leading To Peritonitis

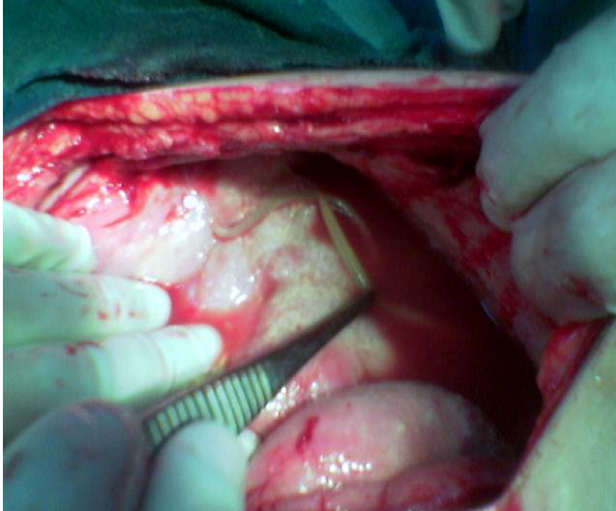


Fig. 1 Showing Close view of Ascaris Lumbricoides



worms-male and female ascaris lumbricoides were found lying in peritoneal cavity. Adhesiolysis and repair of perforation was done.

Discussion

Each ascaris on sonography appears as 2 pairs of parallel lines, representing the worm's outer margin, flanking a central sonolucent line, representing its digestive tract.(3) The granulomatous peritonitis by ascaris is a rare complication of intestinal ascariasis due to the perforation of the digestive tract by the adult worm which deposits its ova in free peritoneum, therefore provoking an intense granulomatous inflammatory reaction.(4,5)

Conclusion

Ascaris lumbricoides may remain asymptomatic, present as intestinal obstruction or in rare cases as gut perforation with peritonitis mimicking granulomatous peritonitis as presented in current case.

References

1. Aldemir M, Yilnaz G, Girgin S, Abqrin Y. Granulomatous peritonitis due to ascaris lumbricoides. *Ulus Trauma Derg* 2000; 6(4): 296-8.
2. Frank N, Ihebwa. Ascaris lumbricoides and perforation of the ileum: A critical review. *British J Surgery* 1979; 66(2): 132.
3. Chawla A, Patwardhan V, Maheshwari M, Wasnik A. Primary ascaridial perforation of the small intestine : Sonographic diagnosis. *J Clinical Ultrasound* 2003; 31(4): 211-213.
4. Mello CM, Briggs Molo C, Venancio ES, Brandao AB, Querroz Felho CC. Granulomatous peritonitis by ascaris. *J Pediatr Surg* 1992; 27(9): 1229-30.
5. Walter N, Krishnaswami H. Granulomatous peritonitis caused by ascaris eggs: A report of three cases. *J Trop Med Hyg* 1989; 92(1): 17-9.