

# INTESTINAL OBSTRUCTION DUE TO ASCARIS LUMBRICOIDES INFESTATION: A CASE REPORT

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## ABSTRACT

Ascariasis is the intestinal parasitic infection caused by *Ascaris lumbricoides* (roundworm). Its highest prevalence is observed in the tropical and subtropical areas.

In contrast to silent forms of this illness or chronic symptomatology, massive infestation in children can lead to serious complications like intestinal obstruction requiring urgent surgical attention. We report a seven year old female child with severe sequelae of intestinal obstruction.

**Key words:** Intestinal Obstruction, *Ascaris lumbricoides*

## INTRODUCTION

*Ascaris lumbricoides* (roundworm) is the most common helminthic infestation, with an estimated worldwide prevalence of 25%<sup>[1]</sup>. It is the largest nematode to infect the human intestine. Ascariasis can occur at all ages, but it is most common in children between 2 to 10 years of age. In Indian school children the incidence is more than 11%<sup>[2]</sup>. Ascariasis is highly prevalent in underdeveloped countries that have poor sanitation. Complications of *A. lumbricoides* infection include obstruction of the small intestine, volvulus, intussusception, pancreatitis, appendicitis and cholecystitis. *Ascaris* causes about 15% of all intestinal obstructions<sup>[3]</sup>.

## CASE

A seven-year-old female child came to surgery department in emergency with severe abdominal pain & vomiting. She had constipation since last 3 days. She had history of pica.

On general examination she was emaciated & pale. Physical examination revealed abdominal distention with tenderness & rigidity. On investigation her Hemoglobin was 10 gm%, while complete blood count, Liver Function Tests and Renal Function Tests were within normal limits. X-ray showed multiple fluid levels indicative of intestinal obstruction. (Figure 1) Ultrasonography of abdomen

revealed multiple linear echogenic foci noted in distal small bowel loops suggestive of worms. Decision of immediate laprotomy was taken. At laprotomy she had necrosis of ileal part of approximately 21 cm. The necrosed part was resected and mass of roundworms was evacuated. Primary end to end anastomosis was performed. Patient was discharged on 7<sup>th</sup> post-operative day without complications.

## SOCIAL BACKGROUND

The girl was one of the seven children living in a joint family. Her mother had died earlier. Father was not taking proper care; hence she was living with uncle along with her siblings. This was a slum dwelling with open drainage and filth all around. All these things favour worm infestations.

## PARASITOLOGICAL OBSERVATION

Evacuated worms were sent to Microbiology department for further identification. Freshly expelled worms were pinkish & cylindrical. (Figure 2) Both male & female roundworms were identified. (Figure 3)

In all 60 worms were counted, 40 being male & 20 being female worms.

Adult male measured 15 to 30 cm in length & 2 to 4 mm in diameter. Their posterior end was curved with two copulatory spicules. (Figure 4)

Adult female measured 20 to 40 cm in length & 3 to 6 mm in diameter. Their posterior end was straight & conical. (Figure 5)

## DISCUSSION

*Ascaris* infestation is common in children residing in slums<sup>[4]</sup>. Malnutrition and immune deficiencies are known to occur in these children. Ascariasis is most common and intensive in children, who are more likely than adults to be symptomatic. In children, intestinal obstruction caused by heavy worm burden ( $\geq 60$ ) is the most common manifestation of disease. An estimated 2 per 1000 infected children develop intestinal obstruction per year<sup>[5]</sup>

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The rate of mortality from intestinal obstruction is 5.7% below the age of 10 years <sup>[6]</sup>. Early diagnosis of obstruction by ultrasonography (USG) is possible. Ascariasis should be promptly treated to prevent life threatening complications. Partial intestinal obstruction from *Ascaris lumbricoides* may resolve spontaneously with conservative treatment. In case of necrosis, resection and primary anastomosis are necessary.

To conclude early clinical diagnosis supported by ultrasonography, together with prompt surgery was life saving in our case. Such measures might reduce the mortality rate in a potentially dangerous condition <sup>[7]</sup>.



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