CASE REPORT

Intestinal Obstruction Due To Ascaris Lumbricoides Infestation In Adult Presenting As Lump In Right Iliac Fossa

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ABSTRACT

Ascaris lumbricoides (AL) is a common resident of intestine especially in low socioeconomic areas of the world. Ascariasis can cause serious intra-abdominal complications such as intestinal obstruction, biliary obstruction, pancreatitis, acute appendicitis, intestinal perforation etc. We report an adult with intestinal obstruction due to entangled mass of AL, that presented as a lump in right iliac fossa, managed by laparotomy and milking the worms into colon without enterotomy.

Key words *Intestinal obstruction, Round worm, Ascaris lumbricoides.*

INTRODUCTION:

Ascaris lumbricoides is the most common helminth affecting humans and causing important medical, surgical and social problems especially in the underdeveloped countries. AL infestation occurs in all age groups but more common in children of preschool age. Various complications of due to AL have been reported. Obstruction of intestinal tract by a mass of AL is one of the serious complications.[1] It is suggested that routine deworming of all the patients attending pediatric surgical outpatient clinics should be done to prevent worm infestation and its complications.[2] However these are uncommon in adults. We report intestinal obstruction in adolescent age group which is a rare event.

CASE REPORT:

A 17-year-old male presented with abdominal distension, colicky abdominal pain, vomiting and not passing flatus and stool for the last 3 days. On examination patient was febrile with toxic look. His pulse was 100/minute and BP 110/70 mm Hg. Abdominal examination revealed tenderness and guarding with ill-defined mass in right iliac fossa. Blood investigations were within normal range except leucocyte count of 21000/mm^3. X-ray abdomen showed multiple air-fluid levels. Ultrasound scan showed mild ascites and fluid filled bowel loops.

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Patient was resuscitated and at laparotomy hundreds of palpable round worms were found impacted in the distal 4 feet of ileum and ileocecal junction forming palpable entangled mass of worms (Fig. I). Rest of the small gut was dilated and loosely packed with worms. Appendix was inflamed. Worms were milked gently into the colon. Appendicectomy was done. Postoperatively, after return of bowel movements, albendazole 400 mg at bed time for 3 consecutive days was given. On next day worms started to pass along with stool. Postoperative recovery was uneventful and patient discharged on day 4. Tablet albedazole 400 mg was also prescribed to all the family members.

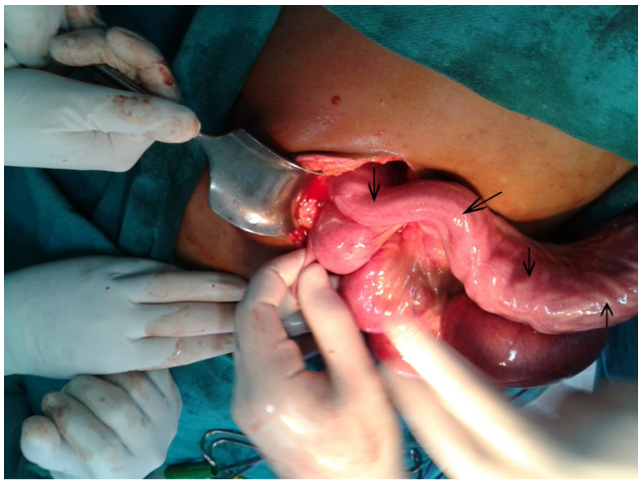

Fig-I: Large number of ascaris seen in lumen of the bowel.

DISCUSSION:

AL is the largest and most prevalent of the human helminths. It is more prevalent in tropical and

subtropical climates.[3] Man is infected by ingesting food contaminated with mature ova. The larvae escape from the ova in the duodenum and reach the lungs by the bloodstream, where further development occurs. They are again swallowed and reach the small intestine, where they reside mainly in the jejunum.[2] They live from stomach to ileocecal valve without causing any serious symptoms. When environment become intolerable for their living, they migrate to more appropriate areas of intestinal tract.[1]

Ascariasis can cause serious intra-abdominal problems. Intestinal obstruction as in present case may be due to obstruction of the lumen because of entangled mass of worms, spasmodic contraction of small bowel onto the mass of worms, inflammation and matting of the loops of bowel at the site occupied by the worms and as a result of volvulus, intussusception, or band obstruction.[2,3]

Diagnosis and management of intestinal obstruction caused by ascariasis differ from other types of intestinal obstruction. It has a high morbidity and mortality, especially following surgical intervention.[3] X-ray may show air fluid levels. USG may show two pairs of echogenic tubular structures (railway track/ winding highway/triple line sign) longitudinally and bull's eye horizontally.[1,4] Gastrografin is used to diagnose complete intestinal obstruction as well as to relieve the partial obstruction caused by ascariasis. Being a hyperosmolar agent, it drags fluid to the intestinal lumen. This excess fluid in the vicinity around the worms, probably separate them from each other. It also makes the worms more slippery, enabling them to pass beyond the region of obstruction. It may also be swallowed by the worms, causing their dehydration and shrinkage.[3]

The conservative management includes resuscitation with adequate fluid and electrolyte replacement to overcome the dehydration. Nasogastric aspiration is done for decompression and to relieve distension. No antihelminthic should be given at this stage, as it may worsen the obstruction by increasing the size of the worms' bolus. Hypertonic saline enema has been recommended by some authors.[3] Surgical intervention is needed when intestinal obstruction progresses or peritonitis occur. In almost all cases the mass of worms can be fragmented and milked into the colon. In cases of gangrene or perforation, resection and primary anastomosis should be performed. After surgical treatment, the antihelminthic drugs can be given postoperatively and personal hygiene must be emphasized.[2,3] Index case presented in advanced stage of disease but fortunately no measure surgical intervention was needed as worms were easily milked into the colon.

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