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Acute Abdomen Obstructive by Asacaris Lumbricoides

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Abstract: ***The most common and widespread parasitosis of all human helminthiasis is caused by Ascaris lumbricoides. The population at greatest risk is children between 1 and 14 years old. The mechanical obstruction of the intestinal lumen is caused by a clustering of A. lumbricoides; in this case, the identification and removal of a mechanical obstruction by A. lumbricoides is described.***

Keywords: Parasitosis, Helminthiasis, Mechanical obstruction, Abdominal pain, Lumbricoid áscaris

Justification
To describe the clinical presentation, diagnosis, and surgical management of an intestinal mechanical obstruction by Ascaris lumbricoides.

1. Introduction

Intestinal parasite infections are a public health problem, particularly in developing countries. Of all parasitic infections, the most common is caused by Ascaris lumbricoides. It presents with symptoms that depend on the life cycle phase of the parasite and its anatomical location. It can manifest with nonspecific symptoms such as abdominal pain, nausea, vomiting, and diarrhea, and in severe cases can cause intestinal obstruction.

The mechanical obstruction of the intestinal lumen is caused by a cluster of A. lumbricoides, and complications are usually due to the number of adult parasites in the digestive tract. The treatment is medical; piperazine is the drug of choice in cases of intestinal or biliary obstruction due to the flaccid paralysis it induces in the parasite, facilitating its elimination. However, in some cases, resolution with medical treatment is not achieved, requiring emergency surgical management.

2. Case Description

Female patient of 6 years, previously healthy, without surgical history, valued by abdominal pain of 1 week of evolution without specifying characteristics, which was poorly located, accompanied by fever, nausea and emesis on multiple occasions, responsible family refers channeling of gases and current stools. Physical examination reveals distended abdomen, increased peristalsis, percussion submate to palpation, voluntary muscle stiffness, plastron palpa in right iliac fossa, appendicular signs present and in association with paraclinic leu 12.8x103/ml, neu 81.50%. The diagnosis of acute abdomen is integrated with presumptive diagnosis of acute appendicitis and surgical management is decided.

Exploratory laparotomy is performed with findings: 200 ml of inflammatory reaction fluid, 12 cm conglomerate, showing movement in terminal ileum handle 20 cm from the ileocecal valve, enterotomy is performed identifying parasites (áscaris) in hundreds, it is decided to close enterotomy in two planes and it is carried out to angle of treitz where it identifies conglomerate of approximately 10 cm that does not allow retrograde taxis so it is decided to perform new enterotomy and removal of parasites, it is placed drainage directed to pelvic hollow and finished procedure.

Signs of systemic inflammatory response during postsurgical period with turpid evolution, abdominal distension and impossibility to channel gases, nausea and emesis on multiple occasions so it is decided to re surgical exploration identifying dehiscence of ileal enterorraphia with presence of conglomerate by apharis, taxis are performed before and retrograde until complete removal of the parasites, it is decided to perform ileostomy at 40 cm of ileocecal valve and distal Hartmann bag is placed drainage directed to sliding and pelvic hollow. it was maintained in postsurgical surveillance with adequate progression progressively improved with the medical management instituted on the basis of antibiotic and antiparasitic until the 15th day when it is discharged with follow-up by the external consultation.

3. Discussion

The World Health Organization estimates that approximately 1221 million people are infected by lumbricoid áscaris. According to the Pan American Health Organization, one in three people is infected. The highest incidence occurs in tropical and temperate areas of the world, in countries such as Brazil, Colombia, Mexico.

Darlington et al. they commented on the appearance of acute abdomen caused by intestinal perforation by lumbricoid áscaris, considering it as a rare entity in terms of its presentation, due to the distensibility of the intestine. It usually occurs in structures with blind termination, such as the Meckel appendix or diverticulum.

Of the complications caused by lumbricoid áscaris, the overall incidence of bowel obstruction in children is estimated to have been approximately 1 in every 500 infected children. In a retrospective observational study, Uysal et al. pointed to lumbricoid áscaris infection in endemic areas as the most common cause of surgical emergencies. Mechanical

obstruction of the intestinal lumen is observed in some studies between 50 and 65% of surgical complications by lumbricoid áscaris, and it makes up approximately 5% to 35% of all intestinal obstructions in children, as indicated by Ramírez et al.

the child population continues to be the most affected with this problem, not only by the direct injuries of the infection, but also in the future, affecting its growth and development. who recommends treating all school-age children at regular intervals with antiparasitic drugs in areas where helminth infection is common.

In a meta-analysis, the objective was to establish quantitatively the relationship between access to drinking water, sanitation and hygiene measures, and infection by soil-borne helminths.

The use of treated water and basic hygiene measures, like hand washing before eating and after defecating, soap use and shoe use are associated with a lower likelihood of soil-borne helminth infection, achieving a reduction of at least 33% in infection rates, with the implementation of any of those parameters, independently. This highlights the importance of socio-economic conditions and sanitary measures, and not just chemoprophilactics in this infection.

In conclusion, intestinal nematode obstruction is a rare and uncommon cause of intestinal obstruction, especially in school-aged children with inadequate hygiene and sanitation practices. Emphasizing basic hygiene measures at all levels of care is crucial to reducing morbidity and mortality associated with this parasitic infection.

Figura 1: Dehiscence of enterorraphy.

Figure 2: Site of intestinal agglomeration.

Figura 1: Ascaris Lumbricoides.

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