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RESEARCH ARTICLE

ENTEROBIUS VERMICULARIS ONE OF THE CAUSE FOR OBSTRUCTIVE APPENDICITIS

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ABSTRACT

Appendicitis is a very common disease in all age groups it requires surgey if the lumen is obstructed i.e., if appendicolith is present. Worms in particular enterobius is indicated in nearly 40% of cases of appendicitis with mostly recurrent and also presents acutely. Appendicectomy in such cases will releave symptoms permanently and patient can have symptom free life after elective appendicectomy. (Sabiston's text book of surgery)

INTRODUCTION

About 8% of people in western countries and around 15 to 17% of people in India have appendicitis at some time during their life. Peak incidence being between 10yrs and 30yrs. Obstruction of the lumen is believed to be the major cause of acute appendicitis and obstruction may be due to inspissated stool (fecolith or appendicolith), lymphoid hyperplasia, vegetable matter or seeds, PARASITES or a neoplasm. (Sabiston's text book of surgery; Appediceal enterobius vermicularis infestation in adults 2007; Appediceal ascariasis in children 2010) A small portion of patients patients presented with pain in the right lower quadrant or lower abdomen of 3 or more weeks of duration, had no alternative diagnosis to account for the symptoms, had pathologic evidence of of chronic inflammation or fibrosis of the appendix and had complete relief of the symptoms after appendicectomy. (Acute appendicitis; University Hospital experience; www.e-mjm.org/1993/v48n; Mattei *et al.*, 1994; Parasitic infestation in pediatric and adolescent appendicitis A local experience 2013)

Case report

A 11 year old female patient presented with pain abdomen since 3 months which is increased since 2 days with 2 bouts of vomiting, on examination patient was febrile and per abdomen examination revealed right iliac fossa tenderness with no guarding or rigidity and bowel sounds were normal. Ultrasound abdomen report came as recurrent appendicitis with mesenteric adenitis, but blood examination revealed acute infection like total count-12,600, neutrophils-91%, lymphocytes-08%, urine routine reveals 4-5 RBCs, 4-5 pus cells, hence patient was taken up for surgery. Surgery went uneventful and patient recovered and discharged after 2nd post op day after ruling out other causes of acute febrile illnesses such as malaria, dengue and Leptospira. After 12 days patient came for follow up with HPE report with pin worm or enterobius vermicularis obstructing the lumen of appendix with signs of chronic inflammation on appendicular walls. Patient was given a single dose of albendazole and followed for 6 months without any recurrence or any other related symptoms.

Fig.1.

Fig.2.

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DISCUSSION

Intestinal worm infestation causes mesenteric adenitis and also in some cases ranging from 0.4 to 40% of obstructive appendicitis were due to worms (ascariasis followed by enterobius vermicularis) which obstructs appendicular lumen and implicated in recurrent or chronic appendicitis. Even present as acute appendicitis in some cases rarely. (Sabiston's text book of surgery; Acute appendicitis; University Hospital experience; www.e-mjm.org/1993/v48n; Mattei *et al.,* 1994) Obstruction of appendicular lumen leads to accumulation of mucus secreted within the appendicular lumen and leads to bacterial overgrowth and continued secretion of mucous leads to intraluminal distension and increase in wall pressure which leads to pain and if not releaved will lead to rupture of appendix and peritonitis. (Sabiston's text book of surgery; Acute appendicitis; University Hospital experience www.e-mjm.org/1993/v48n; Mattei *et al.,* 1994; Acute appendicitis secondary to enterobius vermicularis in a middle aged man 2011) In acute cases patient presents with severe abdominal pain, fever, vomiting and anorexia. Blood examination will reveal acute infection like picture like raised total count with more of neutrophils and rest of the investigation usually will be within normal limits, such cases with acute features should be operated promptly on emergency basis. (Sabiston's text book of surgery Appediceal ascariasis in children 2010; Enterobius vermicularis infection of appendix as a cause of acute appendicitis in a greek adolescent; a case report 2008) In cases of recurrent appendicitis patients will be having dull aching in right lower and lower abdomen with mild fever and nausea, promptly releaved with antibiotics and painkillers but pain never subsides completely and promptly releaves after appendicectomy. (Sabiston's text book of surgery; Acute appendicitis; Mattei *et al*., 1994; Acute appendicitis secondary to enterobius vermicularis in a middle aged man 2011; Enterobius vermicularis: A rare case of appendicitis. Turkiye parazitol Derg 2012)

In cases of intestinal worm infestation which is common in children patients will present with colicky abdominal pain and USG Abdomen reveals mesenteric adenitis and some times mildly inflammed appendix may be seen. These patients will be promptly releaved by appendicectomy which on HPE shows chronic inflammatory cells and some times worms obstructing the lumen.

(Acute appendicitis; University Hospital experience; www.e-mjm.org/1993/v48n; Mattei *et al.,* 1994; Acute appendicitis secondary to enterobius vermicularis in a middle aged man 2011; Enterobius vermicularis: A rare case of appendicitis 2012; Parasitic infestation in pediatric and adolescent appendicitis A local experience 2013; Appediceal ascariasis in children 2010; Enterobius vermicularis infection of appendix as a cause of acute appendicitis in a greek adolescent; a case report 2008) Conclusion: Even though the pin worm obstruction causing appendicitis is common in children (0.4 - 40%), with high index of suspicion and prompt treatment with appendicectomy in cases with chronic abdominal pain with USG abdomen showing mesenteric adenitis and recurrent appendicitis features will help the patients to lead a disease free and symptom free life. (Acute appendicitis; University Hospital experience; www.e-mjm.org/1993/v48n; Mattei *et al.,* 1994; Parasitic infestation in pediatric and adolescent appendicitis A local experience 2013)

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