

## CASE REPORTS

# MULTIPLE HELMINTHIASIS MASQUERADING AS INFLAMMATORY BOWEL DISEASE

Shrikiran A Hebbar, Suneel C Mundkur, Koushik H, Rochelle A Pereira, Rochelle N Gomes.

Department of Paediatrics, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka.

### ABSTRACT

Helminthic infestation in children is a common problem mainly due to poor personal hygiene. It can present with intestinal and extraintestinal manifestations. However helminthic infestation manifesting as inflammatory bowel disease has not been reported. Inflammatory bowel disease as such is rare in the paediatric age group.

This is a rare case of a child presenting with a prior clinical diagnosis of inflammatory bowel disease on treatment with poor response which on further evaluation turned out to be massive helminthic infestation of the large intestine.

### Introduction

Worm infestations form one of the problems in most growing children, most commonly due to poor personal hygiene and in economically burdened areas. The main species causing infestations include roundworms (*Ascaris lumbricoides*), hookworms (*Trichuris trichura*) and pinworms (*Enterobius vermicularis*). A spectrum of manifestations occur in such infestations, from asymptomatic to intestinal and extra-intestinal manifestations. Immunodeficient and malnourished children are more susceptible to more severe forms of disease.<sup>1,2</sup>

This is a rare case which presented with a clinical presentation of inflammatory bowel disease which was evaluated to reveal multiple helminthiasis infesting the large intestine.

### Case Report

A 12 year old girl, with multiple admissions over a period of one year at different hospitals, was being treated as inflammatory bowel disease. She was admitted to our hospital with generalized weakness, lethargy, decreased feeding and blood in stools since one week. Abdominal ultrasound and CECT abdomen from a previous admission was suggestive of ulcerative colitis and infective colitis. On examination, the child was drowsy (GCS-13/15) with hypotension. Severe pallor was present. Child was underweight and stunted. Investigations showed severe iron deficiency anemia (Hemoglobin 1.3 gm/dl, MCV 61.3 Fl, RDW 21.3%) and USG abdomen was suggestive of inflammatory bowel disease. Stool routine showed occult blood and numerous *Trichuris trichura* ova. She was treated with inotropic support and blood transfusion. Child was

**Address for Correspondance:** Suneel C. Munkur, Head of the Unit and Professor, Department of Paediatrics, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka.  
**Email:** [suneel\\_cm@hotmail.com](mailto:suneel_cm@hotmail.com).

©2023 Pediatric Oncall

### ARTICLE HISTORY

Received 15 June 2023

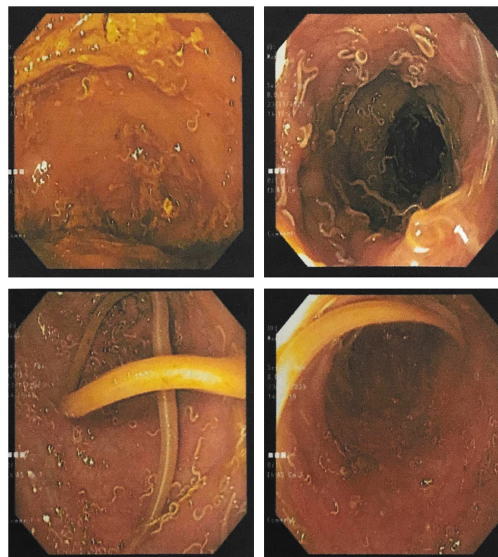
Accepted 11 July 2023

### KEYWORDS

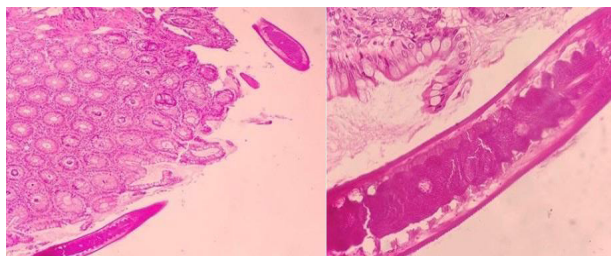
Helminthiasis, Inflammatory bowel disease, *Trichuris trichura*.

dewormed, following which she passed multiple worms in vomitus and stools, phenotypically suggestive of *Ascaris lumbricoides*. Sigmoidoscopy (Figure 1) done showed multiple worm infestations, predominantly *Trichuris trichura* and *Ascaris lumbricoides*. Sigmoid colon biopsy (Figure 2) showed chronic colitis. Child made a complete recovery with treatment.

**Figure 1.** Sigmoidoscopy images showing massive helminthic infestation of the sigmoid colon and rectum.



**Figure 2.** Histopathology of the colon biopsy showing impacted segments of *T. trichura*.



## Discussion

Inflammatory bowel disease (IBD), is characterised by chronic intestinal inflammation. Crohn's and Ulcerative colitis are caused by an interplay of genetic factors, environmental triggers and gut microflora. They mainly manifest in the 2<sup>nd</sup> decade of life and present with unpredictable exacerbation and remission of rectal bleeding, diarrhoea, tenesmus, anorexia, weight loss, poor growth, abdominal pain. Several extraintestinal manifestations such as arthralgia, psoriasis, uveitis are also known to occur.<sup>3</sup>

Helminthic infestations form a major burden in developing countries, especially in children, causing insidious effects on growth and development and cognitive impairment. Helminthiases, present with vomiting, abdominal distension, cramps. Some presentations can be severe and can present as bowel obstruction (Ascariasis). Hookworm infestation mainly presents with blood in stools leading to anaemia and protein malnutrition. Autoinfection which occurs by scratching the perianal area and then transferring the ova to the mouth, is very common in children. Some helminths directly penetrate the skin while others are ingested via contaminated food. Poor socioeconomic conditions and unsafe drinking water further facilitate the spread.

Studies have shown that family members of children presenting with helminthic infestation also suffer from helminthiasis.<sup>4</sup> Hence it is ideal to deworm all the family members also.

Our case presented with nonspecific gastrointestinal manifestations and imaging mimicking inflammatory bowel disease which on evaluation revealed severe anaemia and multiple helminthic infestations. Poor personal hygiene and low socioeconomic conditions were the possible risk factors. Hence periodic deworming, nutritional rehabilitation, sanitation practices and food hygiene should be strictly implemented and reinforced.

## Compliance with Ethical Standards

Funding None

Conflict of Interest None

## References:

1. Weatherhead JE, Hotez PJ. Worm Infections in Children. *Pediatrics in Review*. August 2015;36(8) 341-354.
2. Soil-transmitted helminth infections. World Health Organization. March 2022.
3. Kleigman, Geme S, Blum, Shah, Tasker, Wilson. *Nelson Textbook of Pediatrics*, 21st edition.
4. Pauly M, Sayasinh K, Muller CP, Sayasone S, Black AP. High prevalence of helminth infections in mother-child pairs from three central provinces of Lao People's Democratic Republic *Parasite Epidemiol Control*. 2019 Nov 2;7:e00122. doi:10.1016/j.parepi.2019.e00122. PMID:PMC6911889.