

Eosinophilic ileocolitis due to *Enterobius vermicularis* infection: a rare cause of anemia

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Dear Editor:

The authors report the case of a 38-year-old male patient with Down's syndrome. He was brought to a gastroenterology consultation due to an iron-deficient anemia of unknown etiology. A previous fecal blood test was positive in two of six samples. In this context, it was proposed to perform a diagnostic colonoscopy which was accepted by the patient and his caregivers. During the examination, the presence of small superficial erosions in the right colon, as well as numerous pinworms, more abundant in the cecum, and also ulceration of the ileocecal valve was seen. Multiple biopsies were then performed in the ileocecal valve whose histology revealed the presence of an intense inflammatory response with a predominance of eosinophils. The patient was subsequently treated with an anthelmintic agent, with clinical improvement and resolution of the anemia.

Ileocolitis due to *Enterobius vermicularis* has been reported in the literature as early as 1919, but it is not widely recognized as a cause of intestinal inflammatory disease. Humans are the only natural host. *E. vermicularis*, commonly known as pinworm or threadworm, is responsible for a widespread parasitic infection estimated to affect up to 209 million people worldwide. Around 4 to 28 % of children worldwide are reported to be infected [1]. Pinworms measure approximately

10 mm in length, and the terminal ileum, cecum, and ascending colon are the usual habitats. The most common mechanism of infestation is through fecal oral route (autoinfection) via contaminated fingers. Contaminated food or utensils can also be responsible for dissemination. Less frequently, the parasite eggs can hatch in the anus and infect the colon in a retrograde fashion (retroinfection) [2]. The pathophysiology of *Enterobius* ileocolitis is not well understood. Controversy exists as to whether the worm is responsible for mucosal ulceration or merely takes up residence in preexisting ulcerated mucosa. Some investigators have hypothesized that an immediate hypersensitivity reaction to parasite secretions or surface antigens accounts for the eosinophilic infiltrate [3]. The vast majority of the infested population is unaware of the parasite because of the lack of symptoms. The most common symptom is pruritus in the perianal region, but infestation may also present with ileocolitis, enterocutaneous fistula, urinary tract infection, mesenteric abscesses, salpingitis, and appendicitis [4]. The presence of pinworms in the appendix has been shown to cause symptoms mimicking appendicitis or appendiceal "colic" but frequently without any histological evidence of acute inflammation [1]. *Enterobius* ileocolitis should be included on the list of diseases that can cause bowel wall thickening due to eosinophilic infiltrates. Awareness of this entity is important because *Enterobius* ileocolitis is easily curable with proper treatment.

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