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Eosinophilia and gastrointestinal symptoms in Immunosuppression: a classic but overlooked diagnosis

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Keywords: *Strongyloides stercoralis.* Eosinophilia.

Abstract

A 77-year-old man with idiopathic hypereosinophilic syndrome on corticosteroids presented with fever, diarrhea, and anemia. Initial investigations, including screening for enteric pathogens, were negative, and empirical antibiotics were initiated, with subsequent deterioration. Endoscopy revealed *Strongyloides stercoralis* in the duodenal wall. Treatment with ivermectin resulted in clinical and hematologic resolution. This case highlights the need to consider strongyloidiasis in the differential diagnosis of peripheral eosinophilia.

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Dear Editor,

A 77-year-old man with idiopathic hypereosinophilic syndrome (HIS) on prednisolone 1mg/kg presented to the emergency department with a five-day history of fever, cough, abdominal pain, and watery diarrhea. Physical examination revealed tachycardia and generalized edema, with no skin changes or gastrointestinal bleeding. Initial bloodwork showed microcytic hypochromic anemia (Hb 9.8 g/dL), neutrophilic leukocytosis (64%), eosinophilia (14%), hypokalemia, hypoalbuminemia (1.8 g/dL), and CRP 3 mg/dL. Stool cultures and *Clostridioides difficile* toxin assays were negative. Despite fluid resuscitation, electrolyte correction, and empirical antibiotics, his condition deteriorated. Extended septic workup was negative.

To investigate anemia and diarrhea, upper endoscopy revealed congested, friable duodenal mucosa. Histology showed intense eosinophilic infiltration with *Strongyloides stercoralis*. Ileocolonoscopy biopsies of normal-appearing mucosa confirmed eosinophilic inflammation. Serology supported the diagnosis. Ivermectin was initiated with clinical improvement. Six months post-discharge, the patient remains asymptomatic with normalized eosinophil counts.

Discussion

Strongyloidiasis is a chronic infection caused by the intestinal nematode *Strongyloides stercoralis,* uniquely capable of autoinfection and lifelong persistence. Immunosuppression can trigger disseminated infection with high mortality[2]. This case underscores the need to investigate parasitic infections, especially S. stercoralis, in the differential diagnosis of persistent eosinophilia, particularly before initiating immunosuppressive therapy. Parasitic infections must be excluded before diagnosing IHS[3].

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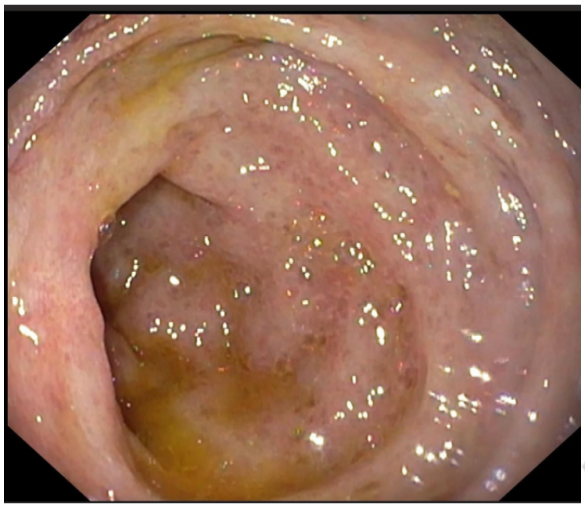

Fig 1. Friable, erythematous, and congested duodenal mucosa.

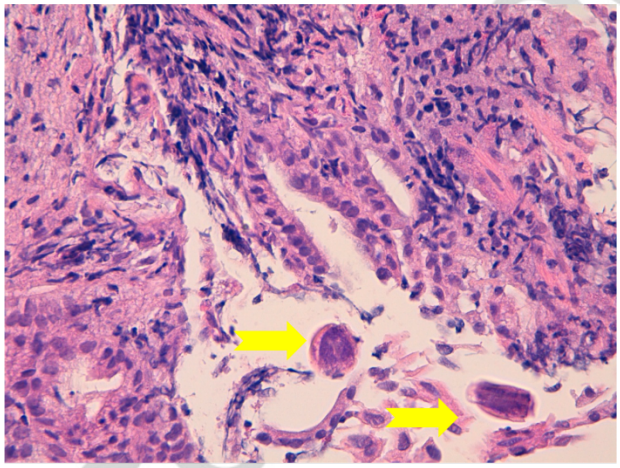

Fig 2. Hematoxylin and eosin (40×): duodenal mucosa with extensive ulceration, intense mixed inflammatory infiltrate with eosinophils, and Strongyloides stercoralis identified.