

# An Often Overlooked Cause of Iron Deficiency in Adults

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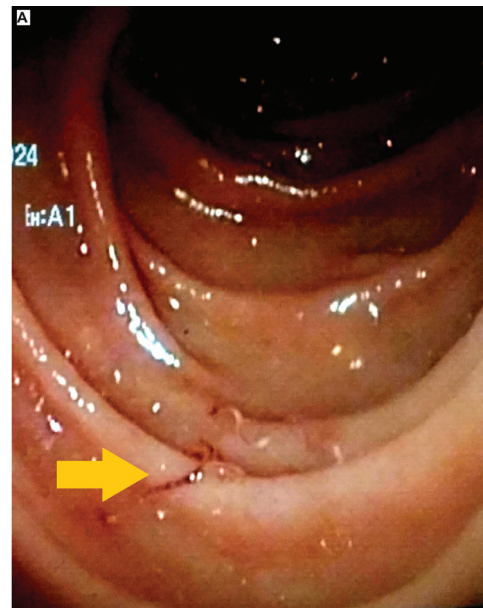
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A 32-year-old male with no prior comorbidity, presented to the gastroenterology outpatient department of our institute with complaints of pain epigastrium, heartburn, and easy fatigability. There was no history of hematemesis, melena, or hematochezia and on examination pallor was noted; rest of the physical examination was within normal limits. The patient had hemoglobin of 9.2 g/dL with mean corpuscular volume of 76 fL and iron studies suggestive of iron deficiency. Immunoglobulin A-tissue transglutaminase levels were within normal limits. There was no history of blood transfusion but had been recently prescribed oral iron therapy by a general physician. No stool testing for worms was done. The patient underwent esophagogastroduodenoscopy for evaluation of iron deficiency anemia and multiple live hookworms in the duodenum were seen (→ Fig. 1). D2 folds were normal. The patient was given antihelminthic treatment in the form of albendazole and oral iron replacement was continued. The patient improved symptomatically and on follow-up, his current hemoglobin is 13.5 g/dL.

Hookworms are soil-transmitted nematode parasites that can reside for many years in the small intestine of their human hosts. By feeding on the blood of their host, the adult worms can induce iron deficiency anemia, especially in high-risk groups including children and women of childbearing age. The primary morbidity associated with human hookworm infection stems from the loss of blood in the intestine (mostly from leakage around the attachment site of the worm and, to a lesser extent, from actively feeding adult worms).<sup>1</sup> Each adult hookworm causes loss of an estimated 0.3 to 0.5 mL of blood each day.<sup>2</sup> Stool microscopic examination is the main diagnostic method for hookworm infection, although the yield depends on the worm burden and the diagnostic technique.<sup>3</sup>



**Fig. 1** Esophagogastroduodenoscopy image showing multiple live hookworms present in the second part of the duodenum (yellow side arrow).

#### Informed Consent

Patient provided informed consent to publish the included information.

#### Ethical Statement

Not applicable.

#### Authors' Contributions

All authors contributed equally to the article.

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**Data Availability Statement**

There is no data associated with this work.

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None.

**Conflict of Interest**

None declared.

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