Midgut bleeding due to uncinariasis and diagnosed by capsule endoscopy: A clinical case

Hemorragia de intestino medio causada por uncinariasis y diagnosticada por cápsula endoscópica. Caso clínico

In Mexico 85% of midgut bleeding is secondary to angio- 
dysplasia, ulcers, and benign and malignant tumors.1 Intestinal 
parasitic disease is an infrequent cause of midgut bleeding. 
Uncinariasis, or hookworm disease, is an intestinal parasitic 
infection produced by Necator americanus (N. americanus) 
and Ancylostoma duodenale, which are distributed throughout the world. However, N. americanus is commonly 
obscerved in the southern part of North America, in Central 
America, South America, Africa, and in tropical Asia.2 This 
report presents the first case of midgut bleeding caused by 
uncinariasis and diagnosed through capsule endoscopy (CE) 
in Mexico.

A 43-year-old woman from a semirural area at the border 
of Mexico and the United States (State of Tamaulipas) had 
a past medical history of mental retardation and paralysis of 
the extremities due to unknown causes. She was 
referred to our center due to intermittent hematochezia of 3-year progression. The patient stated she had no 
previous abdominal pain or chronic intake of nonsteroidal 
anti-inflammatory drugs. Apart from paleness of the skin 
and teguments, the physical examination was unremarkable. The 
laboratory work-up reported hemoglobin of 8 g/dL (normal: 
13-16), MCV 72 fl (normal: 78-100), normal leukocytes, and 
eosinophilia of 18% (normal: 0-8).

Esophagastroduodenoscopy (EGD) showed no vascular 
or mucosal lesions and ileocolonoscopy revealed ulcers in 
the terminal ileum. There was no histopathologic report. 
The patient was treated with oral mesalazine, the dose and length of time of which were not specified, 
and she had intermittent episodes of hematochezia (fresh, bright red blood and nonpainful) and persistent 
iron deficiency anemia on more than 3 occasions. One 
year later, control endoscopy (EGD and colonoscopy) and 
mesenteric angiography did not reveal the site of the 
bleeding. After intestinal segment resection due to a 
Meckel’s diverticulum during exploratory laparotomy, the 
patient presented with new episodes of hematochezia and 
persistence of the anemia. She required blood transfusions 
during the last 2 years (40 U of packed red blood cells). 
Enteroscopy with CE (Pillcam SB, GIVEN Imaging Ltd, 
Yokneam, Israel) identified erythema, multiple erosions, 
and edema of the jejunal mucosa; abundant parasites with 
blood inside some of them were adhered to the intestinal 
mucosa and intestinal bleeding secondary to ulcers was 
observed (Figs. 1A and 1B). The patient was treated with 
an antiparasitic agent (albendazole) and iron supplements; 
12 months later she was in good general condition, with 
o no evidence of hematochezia or clinical or laboratory 
data of anemia. Hookworms specifically affect humans. The 
infec tive filariform larvae are present in moist soil. They 
penetrate the skin when they come into contact with an 
individual, producing a pruritic, erythematous, papular 
skin eruption. The larvae pass into the blood stream 
and from there to the pulmonary alveoli where, through 
bronchial secretions, they are absorbed into the digestive 
tract.2 Eosinophilia has been reported in 30 to 40% of the 
cases. Both types of hookworms parasitize in the proximal 
part of the small bowel in their adult forms, measuring 
approximately 10 to 15 mm in length. They firmly adhere 
to the intestinal mucosa by means of buccal cutting plates 
and suck blood while secreting anticoagulant enzymes 
to maintain the blood flow. The severity of the illness 
depends on the quantity of parasites.3 In this special case report, 
we present evidence of chronic midgut bleeding secondary 
to uncinariasis documented through clinical manifestations 
(intermittent hematochezia), laboratory results (persistent 
anemia and eosinophilia), and endoscopic capsule (bleeding 
jejunal ulcers). The patient had good treatment response in 
the follow-up visit 12 months after being managed with 
antiparasitic agents and iron supplements. Even though 
parasitic disease is an infrequent cause of midgut bleeding, 
it can be suspected in subjects with risk factors (mental 
retardation; living in rural areas) and with persistent 
eosinophilia, regardless of the geographic region. This case 
was a true diagnostic challenge. When midgut bleeding 
study protocol is not followed the diagnosis is more 
difficult, medical attention is more expensive, and the 
patient is at risk for morbidity resulting from decisions that 
are not well founded. Currently the consensus is to carry 
out enteroscopy through capsule endoscopy when midgut
bleeding is suspected. A stool test can identify the eggs of the parasite. In our case they were not reported.

CE revealed the presence of the parasite in the small bowel and active bleeding ulcers. Even though there are recent reports of cases of midgut bleeding produced by intestinal uncinariasis diagnosed through CE from China, Greece, and the United States\textsuperscript{5-8} (Texas), this is the first case that has been reported in Mexico. In conclusion, this report of an isolated case described an infrequent cause of midgut bleeding that should be contemplated in the differential diagnosis in at-risk subjects. In this case there was strong evidence of bleeding ulcers secondary to uncinariasis that conditioned hematochezia and persistent anemia and eosinophilia.

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Conflict of interests

The authors declare that there is no conflict of interest.

References


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