Clinical Image

Ascaris Lumbricoides Detected by Capsule Endoscopy

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Pavel P. Poliakov¹, Anar Y. Alimetov², Alexandr V. Onopriev², Andrey V. Avakimyan³, Azamat Kade¹

¹Department of Pathophysiology, Kuban State University Faculty of Medicine, Krasnodar, Russia
²Department of Postgraduate Surgery №1, Kuban State University Faculty of Medicine, Krasnodar, Russia
³Klinika-A OOO (Limited Liability Company), Krasnodar, Russia

Address for Correspondence: Pavel Poliakov, Department of Pathophysiology, Kuban State Medical University, Krasnodar, Russia
e-mail: palpal.p@yandex.ru ORCID ID: orcid.org/0000-0002-9532-0626

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A 47-year-old Caucasian woman complained of abdominal discomfort and general weakness. Medical history included travels to ascariasis-endemic areas. Hemoglobin level – 7.6 g/dL. Esophagogastroduodenoscopy revealed no evidence of active bleeding, colonoscopy revealed no pathology. Capsule endoscopy revealed a live helminth in the terminal ileum; it was identified as Ascaris lumbricoides (A. lumbricoides) (Figure 1). Written informed consent was obtained from the patient. There were no adverse effects or complications of the procedure. The patient was advised to take albendazole.

A. lumbricoides is the most common soil-transmitted helminth, which has infected more than 800 million patients in the world [1]. The increase in global migration and travel contributes to the prevalence of ascariasis, as well as other soil-transmitted helminth infections, in non-endemic regions. An absence of past travel to endemic regions in medical history does not exclude the possibility of ascariasis, since humans can be infected not only with A. lumbricoides, but also with Ascaris suum, which typically infects pigs (there are arguments in favor of these nematodes belonging to the same species) [1, 2].

Three main pathogenetic mechanisms underlie the numerous manifestations of ascariasis that resemble symptoms of various diseases. Migration of larvae damages the blood-air barrier (causing hemoptysis) and induces Type I hypersensitivity reaction (eosinophilia, Löffler syndrome). Vital functioning of an adult helminth in the intestine lead to abdominal pain, liver and pancreas damage, malabsorption, etc. Asymptomatic cases are also frequent [1, 2, 3, 4]. One should keep soil-transmitted helminth infections in mind when carrying out differential diagnosis in patients with concealed gastrointestinal bleeding and anemia that cannot be explained by other causes [2, 3]. Capsule endoscopy, in this case, has the advantage of visualizing the intestinal mucosa.

References

FIG. 1. a-d. Live helminth (arrow) in bowel lumen (a-c). d. Pseudopolyp (asterisk) (d).