

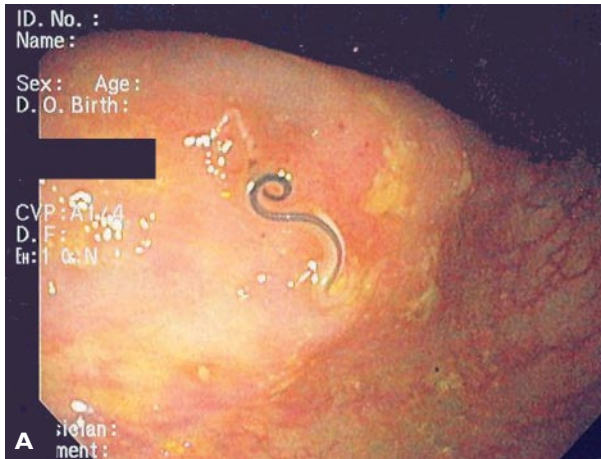
Pinworm Infection

Richard C. Feldstein, MD, MS

Bethany DeVito, MD

Marcia E. Epstein, MD

David Bernstein, MD



A 61-year-old man presented for routine colon cancer screening. No recent travel history, weight loss, anemia, rectal pruritus, or discomfort was noted. The colonoscopy was normal except for the presence of a 2.5-cm worm-like mobile structure in the proximal ascending colon, which was retrieved with a grasper (**Image A**). The pathology specimen obtained was consistent with *Enterobius vermicularis* (**Image B**). Microscopic stool analysis for ova and parasites was negative. The patient and all members of his family were treated with 1 dose of albendazole 400 mg followed by a repeat course 2 weeks later.

E. vermicularis is a common helminthic parasite that affects people worldwide from all socioeconomic classes. Humans are the only natural host for the parasite. A high prevalence is noted among children (typically aged 5–10 yr), institutional populations, homosexual men, and family contacts.^{1–3} Infection commonly occurs by transfer of highly infective eggs from the perianal area to the mouth. The human gastrointestinal tract is the primary site of habitat, mainly in the cecum and appendix. Each female worm can produce between 10,000 and 20,000 eggs. Following mating, the male dies. The female then migrates out onto the perianal skin to deposit her eggs, which commonly occurs at night.

Symptoms range from an asymptomatic presentation to perianal pruritus, insomnia, irritability, restlessness, and rarely, impetigo of scratched skin, vulvo-

vaginitis, or enuresis.^{1,4} Diagnosis is best made with the “Scotch tape” test, where a strip of cellophane tape is pressed to the perianal skin and examined under the microscope for eggs and, uncommonly, the female adult worms. Colonoscopy or anoscopy typically are not needed for the diagnosis, and fecal examination is unnecessary as eggs are not passed in the stool.

First-line treatment is with either mebendazole or albendazole. Two doses are commonly prescribed for therapy, as these drugs will kill only the adult worm (not its eggs or larvae). Surviving eggs and larvae in a host’s intestines can mature to new adults in 14 days. Thus, a second dose, 14 days after the first, is crucial for killing the new adults.⁴ Although screening colonoscopy is performed for assessment of colorectal carcinoma, incidental findings may result in initiation of therapy for conditions not elucidated by history or other diagnostic means. **HP**

REFERENCES

1. Cook GC. *Enterobius vermicularis* infection. Gut 1994;35:1159–62.
2. Sun T, Schwartz NS, Sewell C, et al. *Enterobius* egg granuloma of the vulva and peritoneum: review of the literature. Am J Trop Med Hyg 1991;45:249–53.
3. Goldmann DA, Wilson CM. Pinworm infestations. In: Hoekelman RA, editor. Primary pediatric care. 3rd ed. St. Louis: Mosby; 1997:1519.
4. Grecnis RK, Cooper ES. *Enterobius*, trichurias, capillaria, and hookworm. Gastroenterol Clin North Am 1996;25:579–96.

Dr. Feldstein is a gastroenterology fellow, Dr. DeVito is an attending physician, and Dr. Bernstein is chief, Division of Gastroenterology, Hepatology & Nutrition; Dr. Epstein is associate chief, Division of Infectious Diseases; all are at North Shore University Hospital, Manhasset, NY.