Human Infection with *Hymenolepis diminuta*: Case Report from Spain

DANIEL TENA, MONTSSERRAT PÉREZ SIMÓN, CARMEN GIMENO, MARÍA TERESA PÉREZ POMATA,* SOLEDAD ILLESCAS†, IZASKUN AMONDARAIN, ALEJANDRO GONZÁLEZ, JESÚS DOMINGUEZ, AND JULIA BISQUERT
Sección de Microbiología, Hospital General Universitario, Guadalajara, Spain

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We report a case of *Hymenolepis diminuta* infection in a human. The patient was a 5-year-old girl referred to us through the onset of a cyanotic attack. Treatment with a single dose (10 mg/kg of body weight) of praziquantel was ineffective, but the parasite was eradicated after three treatment cycles with the same drug at dosages of 25 mg/kg/day for 5 days.

*Hymenolepis diminuta* is a tapeworm that occurs throughout the world. Its principal definitive hosts are rodents. Nevertheless, in rare instances, it can infect humans, when by accidental ingestion of infected arthropods, cysticercoids find their way to the small intestine (15). We report one case of *H. diminuta* infection in a child from Guadalajara, Spain.

A 5-year-old girl, who lived near a grain silo infested with rats, was referred to our Pediatric Unit because, during an episode of apnea induced by crying, she became cyanotic, lost consciousness, and experienced stiffness of the limbs followed by drowsiness and hypotony. The little patient occasionally complained of abdominal pain and anal pruritus. She also endured enuresis and restless nights. Subsequent physical examination, complemented by electroencephalography and skull and chest roentgenograms, was normal. No abnormal readings were found in blood and urine analysis. A Graham test verified absence of *Enteroxobius vermicularis* eggs. The parasitological examination of concentrated stools (10) revealed spherical, 70-μm-diameter, thick-shelled eggs that contained six central hooklets but no polar filaments (Fig. 1); they were spherical, 70-mm-diameter, thick-shelled eggs that contained six central hooklets but no polar filaments (Fig. 1); they were eggs. The parasite was eradicated after three treatment cycles with the same drug at dosages of 25 mg/kg/day for 15 days (1) was prescribed. Neurological signs were subsequently labeled as cyanotic attacks.

A second parasitologic examination carried out 30 days after diagnosis demonstrated the presence of *H. diminuta* eggs and *Giardia lamblia* cysts. The mother and the only brother were found to evacuate *G. lamblia* cysts as well. During the follow-up visit, the parents admitted that the niclosamide treatment had not been performed as prescribed. At that time, abdominal pain was still present, whereas neurological signs had not reappeared. Consequently, the patient was put on oral metronidazole (375 mg/day) for 7 days, supplemented by a single dose of praziquantel (10 mg/kg of body weight).

One month after completion of the treatment, the child was asymptomatic, but *G. lamblia* cysts and *H. diminuta* eggs were again found in feces. In view of the circumstances, she was given a single dose of tinidazole (1 g) followed up by three cycles of 25 mg of praziquantel per kg/day, with each cycle lasting 5 days. Parasitological examinations carried out 1, 3,
diminuta infection be reported, especially data regarding treatment protocols and parasitological responses.

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REFERENCES

FIG. 1. H. diminuta egg at ×40 magnification.