Human Infection with *Hymenolepis diminuta*: Case Report from 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 amniation, verified absence of infection in a child from Guadalajara, Spain.

**A second parasitologic examination carried out 30 days after 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.

Although *H. diminuta* infection is often asymptomatic (2, 3), abdominal pain (2, 3, 8), irritability (2, 30, 31), and pruritus (2) have been associated with this condition. *H. diminuta* infection may cause eosinophilia (3), a finding that was not detected in our patient. The relationship between abdominal discomfort and *H. diminuta* infection was difficult to establish, because that symptom disappeared way ahead of the cestode’s eradication. The conjunctival presence of *G. lamblia* that may have gone undetected during the first parasitological examination is also a well-known cause of abdominal pain in infected individuals (9). Irritability might have given rise to the cyanotic attack.

Praziquantel is the drug of choice for treatment of *H. diminuta* infection (2), but niclosamide is also effective (13, 14). Our patient was initially prescribed niclosamide, but the treatment regimen was not respected. A single dose of praziquantel (10 mg/kg) failed to annihilate the tapeworm. Currently used therapeutic handbooks do not discuss *H. diminuta* treatment (1, 24), perhaps because of its low prevalence. We believe that in the present case, a single 25-mg/kg praziquantel dose, as recommended for *Hymenolepis nana* infection (1, 24), followed by a new parasitological examination of stools should have been the next and most appropriate management step; instead, the pediatrician decided to prescribe a more prolonged treatment to ensure eradication. Given the lack of data about praziquantel treatment (1, 24, 26), we suggest that every case of *H.
diminuta infection be reported, especially data regarding treatment protocols and parasitological responses.

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REFERENCES