

Dicrocoeliasis with signs of chronic diarrhea in a child

Z. Gulden Sonmez Tamer¹, Selim Oncel²

¹ Kocaeli University - Medical Faculty, Department of Medical Microbiology, Kocaeli, Turkey

² Kocaeli University- Medical Faculty, Department of Pediatrics, Kocaeli, Turkey



Objectives

Infection with *Dicrocoelium dendriticum* (*D. dendriticum*) in children is rarely reported in the medical literature. *D. dendriticum* is the causative agent of a rare food-borne zoonosis of the human biliary tract, dicrocoeliasis, for which few human prevalence data are available. Infection occurs through the ingestion of ants containing metacercariae, whereas pseudo-infections (presence of *D. dendriticum* eggs in stool in the absence of adult worms) are due to the consumption of infected animal liver. Its life cycle is similar to the other liver flukes such as *Fasciola hepatica* but it encysts in ant, the secondary intermediate host. In humans, even heavy infections with *D. dendriticum* are usually asymptomatic but diarrhoea, flatulence, biliary obstruction, cholangitis and/or acute urticaria may develop.

The parasite is reported from most part of Europe and Asia and also has foci in North America and Australia. The prevalence of *D. dendriticum* in Turkey is unknown. We report a rare case of dicrocoeliasis in a child. This case is important because it attracts attention to parasitic diseases such as dicrocoeliasis, which are non-endemic and cannot be easily diagnosed clinically.



Fig. *Dicrocoelium dendriticum* egg: Two small (20 µm to 30 µm X 35 µm to 50 µm), thick-walled, yellowish-brown operculate eggs containing miracidium (40X)

Case Report

A eight-year-old Turkish girl reported having had chronic-relapsing diarrhea, right upper abdominal pain and weight-loss for about five months. The physical examination was unremarkable except for an abdominal tenderness to palpation in the right upper quadrant. The serum level of bilirubin was slightly raised to 1.12 mg/dl (<1.10 mg/dl) and the level of IgE was raised to 215 U/ml (<100 U/ml). Serologic tests for celiac disease were negative. All other laboratory findings were within normal limits.



E-mail: guldensonmez@hotmail.com

25 th ECCMID Copenhagen, Denmark

Stool examinations showed eggs of *Dicrocoelium dendriticum* (Fig). The abdominal ultrasound was unremarkable except for mild steatosis. The patient denied consumption of liver or liver-products within the past weeks. Spurious infection due to eating infected liver could thus be excluded. Then stool examination (three times) revealed dicrocoelium ova. The patient was treated for dicrocoeliasis with praziquantel (3×25 mg/kg/day for three days). Further stool examinations for parasites were negative and diarrhea was disappeared. Five weeks after the patient was almost free of symptoms and stool examinations for parasites remained negative.

Since *D. dendriticum* is not a normal parasite of humans, laboratory technicians who find eggs of this trematode in stool samples usually attribute them to spurious infection and so may miss true cases of human dicrocoeliasis.