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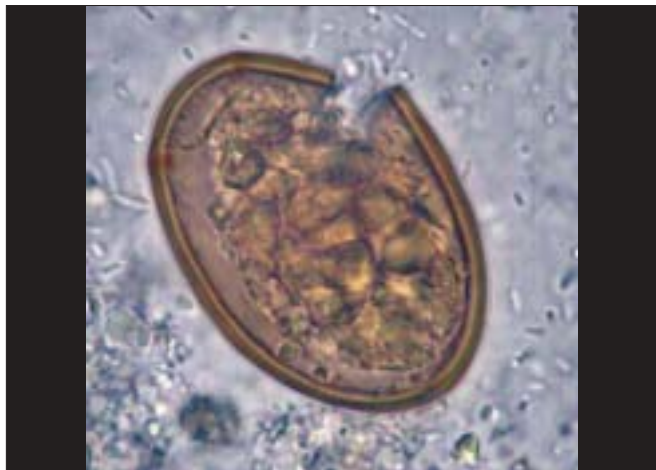
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# Acute Urticaria Associated with *Dicrocoelium dendriticum* Infestation

Dear editor,

A 21-year-old Afghani woman, who had recently come to Germany, presented with acute urticaria affecting the complete integument. Parasitologic examination of four stool specimens obtained over two weeks revealed *Dicrocoelium dendriticum* eggs (Figure) and non-pathogenic amebae. Topical prednicarbate treatment and praziquantel ( $3 \times 600$  mg for 3 days) were recommended. Due to her state as refugee, the patient was lost to follow-up. Adult *D. dendriticum* live in the gall bladder and bile ducts of their final hosts (ruminants). Worm eggs are passed in faeces, which are swallowed by terrestrial snails. Snails excrete cercaria in mucous balls, which are eaten by ants. Infected ants stick to the tip of a grass-blade due to tetania of their mandibles. Herbivorous animals may ingest infected ants while grazing. In these animals, flukes develop, which migrate into the

liver.<sup>[1]</sup> Humans may rarely get infected by ingesting ants. However, in most cases, *D. dendriticum* eggs in human stools are not due to infection but by the ingestion of undercooked liver of infected animals.<sup>[2,3]</sup> Such a “spurious” infestation (pseudoparasitism) seems unlikely in our patient, since *D. dendriticum* eggs were present in spite of a liver-free diet. Parasite-associated chronic urticaria are well known. Our case differs considerably from others in many respects: (i) in contrast to most urticaria-associated parasites, *D. dendriticum* is not a gastrointestinal parasite; (ii) in contrast to most parasite-associated urticaria, the presentation in our patient was acute, much like schistosome-caused urticaria; (iii) in contrast to schistosomal larvae, *D. dendriticum* does not require wandering in humans. Symptoms caused by *D. dendriticum* in rare cases of human infections include



**Figure:** *Dicrocoelium dendriticum* egg. The dark brownish egg is thick-walled, operculated and relatively small ( $40 \times 20 \mu\text{m}$ ). A hatching miracidium is seen while breaking the operculum (*arrow*)

chronic constipation or diarrhoea, hepatomegaly and biliary obstruction.<sup>[4]</sup> Unfortunately, since the patient was lost for follow-up, it could not be proven that *D. dendriticum* was in fact responsible for her acute urticaria. We believe that ants can cause urticaria not only directly by venom but also indirectly by transmitting *D. dendriticum*. Parasitological stool examination is worthwhile in the diagnostic workup of urticaria.

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\*A Sing, K Tybus, I Fackler

Bavarian Health and Food Safety Authority  
(AS), Veterinärstraße 2, 85764 Oberschleißheim,  
Germany; Max-von-Pettenkofer-Institut für Hygiene  
und Medizinische Mikrobiologie (AS, KT),  
Ludwig-Maximilians-Universität München,  
Pettenkoferstraße 9a, 80336 München, Germany; and  
Klinik und Poliklinik für Dermatologie und Allergologie  
(IF), Ludwig-Maximilians-Universität München,  
Frauenlobstraße 9-11, 80337 München, Germany

\*Corresponding author (email: <andreas.sing@lgl.bayern.de>)

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