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A serpiginous, itchy rash on the foot

FIGURE 1. Cutaneous larva migrans.

A 22-YEAR-OLD WOMAN presented with a serpiginous, erythematous, itchy lesion on her left foot (**Figure 1**), 10 days after returning from a beach holiday in Tanzania. She noted that the site of the lesion kept changing. Her medical history was otherwise unremarkable.

Based on the patient's recent travel, the pattern of the lesion, the intense pruritus, and the lack of other symptoms, the lesion was diagnosed as cutaneous larva migrans. We applied cryosurgery and prescribed thiabendazole 10% cream twice daily for 2 weeks. The lesions resolved completely after 2 weeks.

BEACH WORM

Cutaneous larva migrans—also known as migrant linear epidermitis, beach worm, migrant helminthiasis, dermatitis serpiginosa, creeping eruption, or sand worm—is a zoodermatosis caused by cutaneous penetration of helminth larvae, usually parasites of the small intestines of cats and dogs.[1–3] This eruption is usually seen in tropical and subtropical climates, such as Central America, South America, Africa, and even the southeastern parts of the United States, although with the ease of travel to the tropics its incidence could well be increasing on return to the home countries.[1,2] The disease is endemic along the southeastern Atlantic coast of North America, in the Gulf of Mexico, in the Caribbean, and on the coast of Uruguay.

doi:10.3949/ccjm.83a.15110

Common species

The most common cause is *Ancylostoma braziliense*, with less common species being *Ancylostoma caninum*, *Uncinaria stenocephala*, and *Bunostomum phlebotomum*.[4] The larvae may cause a nonspecific dermatitis at the site of penetration where the skin has been in contact with infected soil, commonly the feet, hands, or buttocks. From the point where larvae penetrate, they gradually form linear tunnels with an irregular and capricious path, advancing at a rate of a few millimeters a day.[3] There may be a single path, as in our patient, or hundreds or even a thousand in cases of massive infection.

The larvae rarely affect other organs, and systemic manifestations such as migratory pulmonary infiltrates and peripheral eosinophilia (Loeffler syndrome) are rarely seen. Larva currens, caused by the rapid-moving parasitic roundworm *Strongyloides stercoralis,* generally manifests on the buttocks or the perianal region and lasts only a few hours.

Key diagnostic features

The diagnosis of cutaneous larva migrans is based on the clinical history and on the serpiginous and migratory pattern of the lesions. However, eczematization and secondary infection may make recognition of these features more difficult.[3] Biopsy of the lesions usually does not help identify the larvae, since they advance in front of the path.

TREATMENT OPTIONS

Although the disease is self-limiting, treatment is usually recommended because of intense pruritus and the risk of bacterial infection. With no treatment, the number of lesions falls by 33% after 1 week, 54% after 2 weeks, 71% after 3 weeks, and 81% after 4 weeks according to Katz et al.[5] Other reports mention that 25% to 33% of the larvae die every 4 weeks.[5]

Treatment is topical or systemic, depending on the extent and location of the lesions. Systemic treatment is preferred for widespread or multiple lesions or lesions located near the eye, but use is limited due to a high incidence of adverse effects.

The drugs of choice are albendazole 400 mg/day for 3 days, ivermectin 0.2 mg/kg in a single dose, or thiabendazole 25 mg/kg/day, divided into two doses for 5 days. If there are few lesions, as in our patient, thiabendazole ointment or 10% cream may be applied to the entire lesion, slightly in front of the leading point of advance of the lesion.[1,6] However, thiabendazole is not available in the United States.

Adverse effects of ivermectin include fever, pruritus, and skin rash. Albendazole may cause abdominal pain, dizziness, headache, fever, nausea, vomiting, hair loss, bone marrow suppression, agranulocytosis, aplastic anemia, or elevation of liver enzyme levels. Thiabendazole may cause delirium, diarrhea, hallucinations, loss of appetite, numbness, nausea, and central nervous system toxicity. ■

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