

Meandering linear pruritic lesion

JENNIFER CLAY CATHER, MD, J. CHRISTIAN CATHER, MD, AND M. ALAN MENTER, MD

A 2-year-old presented with a 6-week history of an eruption that originally began with a “pimple”-like sore on his foot (*Figure 1*). Gradually the lesion extended linearly up the calf and onto the thigh (*Figure 2*). It was mildly pruritic, and regional adenopathy was evident. Prior treatments with topical and systemic antibiotics as well as topical steroids failed to stop the progression of the disease.

What is the diagnosis and treatment?



Figure 1. Linear meandering lesion on the foot.



Figure 2. Extension of the lesion from the foot up to the thigh.

From the Division of Dermatology, Department of Internal Medicine, Baylor University Medical Center, Dallas, Texas (Jennifer Cather and Alan Menter) and Cornea Associates of Texas, Dallas, Texas (J. Christian Cather).

Corresponding author: Jennifer Clay Cather, MD, 5310 Harvest Hill Road, Suite 260, Dallas, Texas 75230.

DIAGNOSIS: Cutaneous larva migrans.

DISCUSSION

The migratory pruritic eruption caused by the larvae of hookworms (nematodes) is commonly referred to as “creeping eruption.” The usual source of the infestation is sand or soil contaminated with animal feces containing infective larvae. The larvae may remain viable in the environment for weeks. Human infestation occurs when nematode larvae in soil penetrate the exposed surface of the skin.

The most common skin-penetrating nematodes that cause this parasitic infestation are the larvae of dog and cat hookworms *Ancylostoma braziliense* and *A. caninum*. Infestation by *Uncinaria stenocephala* and *Bunostomum phlebotomum* also has been reported.

Cutaneous lesions may be solitary or multiple and are characteristically erythematous papular or meandering linear lesions with episodic vesicles along the path the larva has migrated. Usually, lesions are small in diameter (3–4 mm) with a length of 15 to 20 mm; however, as in this case, the lesion may reach tens of centimeters. The hookworm usually meanders a few millimeters per day but occasionally may spread up to 1 to 2 centimeters per day. The most common areas involved are the feet, buttocks, and genitalia. Patients commonly complain of itching and pain. While systemic symptoms are uncommon, wheezing, cough, and urticaria have been reported in those with extensive infestation.

Cutaneous larva migrans is diagnosed based on clinical findings. Recent travel to a tropical beach frequented by animals is a helpful clue—hot spots for this disease include the southeastern United States, the Caribbean, Africa, Central and South America, India, and Southeast Asia. A skin biopsy past the leading edge of the eruption may demonstrate the hookworm; however, this is not routinely done because the worm is not clinically visible and is well beyond the leading edge. A peripheral eosinophilia may be seen on laboratory evaluation. Additionally, a

chest radiograph may show diffuse infiltrates in patients with systemic symptoms.

The larvae of *Strongyloides stercoralis* can penetrate the skin and produce a skin eruption identical to that of cutaneous larva migrans; however, these lesions progress more rapidly and are known as larva currens. Other conditions that may mimic cutaneous larva migrans include contact dermatitis, bacterial or fungal infections, scabies, myiasis, and loiasis and other helminthic infections.

Human infestation is usually self-limiting, with an average duration of 2 to 8 weeks. Rarely, the infestation may persist for years. A variety of treatments have been used successfully. Most common regimens include oral or topical thiabendazole (10%–15% lotion applied 2–3 times a day for 5 days), systemic albendazole (400–800 mg for 3–5 days), and ivermectin (a single 12-mg dose).

General references

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