

What's Eating You? Extensive Cutaneous Larva Migrans (*Ancylostoma braziliense*)

Seema Patel, BS; Sina Aboutalebi, MD; Prema L. Vindhya, MD; Jennifer Smith, MD

Cutaneous larva migrans (CLM) is a self-limited cutaneous eruption commonly encountered in tropical and subtropical geographic areas. The most common cause in the United States is infection by *Ancylostoma braziliense*, a parasitic hookworm of cats and dogs.¹ Human infection usually is acquired through accidental contact with sand or soil contaminated with infected feces. Cutaneous larva migrans presents as an intensely pruritic eruption with an advancing tract that commonly affects the distal lower extremities.¹ We describe a unique case of CLM limited to the trunk and proximal upper extremities of an individual, with minimal involvement of the lower extremities.

Case Report

A 55-year-old man presented with a 2-week history of a severe pruritic eruption involving the trunk and upper extremities. The patient was crawling in the sand below a house on beams in Rockport, Texas, near the Gulf Coast when his symptoms began. He was covered in sand and suddenly felt repeated sharp prickly pains on his trunk and shoulders. After developing immediate severe pruritus, the patient presented to his primary care physician 2 days later and was diagnosed with contact dermatitis. He was treated with oral methylprednisolone, topical corticosteroids, and oral antihistamines, with no relief of symptoms. Topical lindane also was used for a potential scabies

infection but provided no improvement. The patient was subsequently referred to the dermatology department for further evaluation.

Physical examination revealed multiple erythematous papules and plaques in a linear and serpiginous distribution involving the trunk, proximal upper extremities, and hips (Figure). Despite the distribution, the lesions were morphologically suspicious for CLM. The patient was treated with a single dose of oral ivermectin 12 mg and reported substantial improvement by the next day. Four punch biopsy specimens also were obtained from representative lesions and demonstrated focal spongiosis of the epithelium, a superficial and deep perivascular infiltrate of lymphocytes and eosinophils, and occasional neutrophils and plasma cells. No larval forms were observed within the epidermis on multiple levels. Thiabendazole solution 15% was further added to the treatment regimen, leading to complete resolution of the patient's symptoms.

Comment

Cutaneous larva migrans commonly is a self-limited condition that resolves without treatment after several months, though some cases may sustain for up to a year. Typically, the lesions involve the distal lower extremities, buttocks, hands, or knees, and can cause substantial pruritus and discomfort in affected individuals. The larvae travel about 1 to 2 cm per day, producing the characteristic migrating lesions. Biopsy specimens of the inflamed tracts often fail to demonstrate the larva because the clinical lesion usually develops after the larva has passed through the tract.² A biopsy specimen from unaffected skin in front of the advancing tract may be more likely to demonstrate the parasite.³ If present within a biopsy specimen, the larva is approximately 0.5-mm in diameter and up to 10-mm long.⁴ It usually is confined to the epidermis without extension to the dermis because

Accepted for publication March 5, 2008.

Ms. Patel is from Texas Tech University Health Sciences Center, Amarillo. Drs. Aboutalebi and Smith are from the Department of Dermatology, Texas Tech University Health Sciences Center, Lubbock. Dr. Vindhya is in private practice, Odessa and Midland, Texas.

The authors report no conflict of interest.

Correspondence: Jennifer Smith, MD, Texas Tech University Health Sciences Center, 3601 4th St, Stop 9400, Lubbock, TX 79430 (jen.smith@ttuhsc.edu).



Multiple erythematous and serpiginous tracts on the trunk (A). Characteristic annular serpiginous tract also on the trunk (B).

it lacks the collagenase enzyme needed to digest the basement membrane.⁵ Other histologic findings may include scale; crust; spongiosis; intraepidermal

vesiculation; and a perivascular infiltrate of lymphocytes, eosinophils, and histiocytes.⁴

Treatment often is started from the clinical presentation, as biopsies may not always be completely diagnostic. Systemic treatment options include oral ivermectin, albendazole, thiabendazole, or flubendazole. A single dose of oral ivermectin 12 mg has demonstrated an excellent cure rate of 81% to 100%.⁶ Topical thiabendazole also produces high cure rates without the side effects that may be associated with systemic medications.⁷ Delay of treatment may result in prolonged discomfort as well as increased vulnerability to secondary bacterial infections from constant scratching. Therefore, familiarity with the morphology and distribution of this condition may result in earlier treatment and reduced morbidity in affected individuals. The presentation of erythematous advancing lesions confined to the trunk and upper extremities in our patient is a unique distribution of CLM, which should be considered in individuals with a history of exposure to infected sand or soil.

REFERENCES

1. Blackwell V, Vega-Lopez F. Cutaneous larva migrans: clinical features and management of 44 cases presenting in the returning traveler. *Br J Dermatol*. 2001;145:434-437.
2. Karthikeyan K, Thappa D. Cutaneous larva migrans. *Indian J Dermatol Venereol Leprol*. 2002;68:252-258.
3. Rao R, Prabhu S, Sripathi H. Cutaneous larva migrans of the genitalia. *Indian J Dermatol Venereol Leprol*. 2007;73:270-271.
4. Rapini RP, ed. *Practical Dermatopathology*. 1st ed. Philadelphia, PA: Elsevier; 2005.
5. Sanguenza OP, Lu D, Sanguenza M, et al. Protozoa and worms. In: Bologna JL, Jorizzo JL, Rapini RP, eds. *Dermatology*. 1st ed. Philadelphia, PA: Elsevier; 2003:1295-1320.
6. Caumes E. Treatment of cutaneous larva migrans. *Clin Infect Dis*. 2000;30:811-814.
7. Tremblay A, MacLean JD, Gyorkos T, et al. Outbreak of cutaneous larva migrans in a group of travelers. *Trop Med Int Health*. 2000;5:330-334.