

# Denouement and Discussion

## Bullous Cutaneous Larva Migrans

Cutaneous larva migrans presents as an intensely itchy and slowly moving linear rash on the skin caused by the infestation and migration of animal hookworms within the skin and the cutaneous reaction that results.<sup>1-4</sup> It frequently occurs following direct skin exposure to the hookworm, often during trips to the beach or from children's sandboxes where contact with the hookworm in sandy soil can occur.

The most common larva associated with cutaneous larva migrans is the dog hookworm *Ancylostoma braziliense*. Adult worms live and multiply in the animal's intestine. The eggs are then distributed in the soil or sand from the feces of the infected animal. Under warm and moist conditions, the ova hatch into infective larvae and can then penetrate intact skin when in direct contact.<sup>1</sup>

The eruption begins as a discrete erythematous papule where contact with sand is common—typically the feet, hands, knees, and buttocks.<sup>1,2</sup> A migratory, serpiginous, pruritic, slightly raised rash develops as the larva advances approximately 2 to 3 mm per day.<sup>2</sup> Usually, the larva is just beyond the clinical head of the rash.

Bullae appear in some patients with cutaneous larva migrans.<sup>5,6</sup> Why they appear is unknown, but Veraldi and Arancio<sup>5</sup> hypothesize that bullae are the result of a delayed hypersensitivity or acute contact dermatitis to larval antigens or the release of larval lytic enzymes.

Both epidemiologic data and characteristic clinical features are the most valuable keys for the diagnosis, and most cases can be diagnosed solely on clinical grounds. A secondary infection or bullous reaction may, however, mask the linear pattern of the lesion and make the diagnosis more difficult. Circulating peripheral eosinophilia and eosinophils in cutaneous biopsy specimens support the diagnosis.

Other infestations and infections that resemble cutaneous larva migrans include cutaneous larva currens. This is a clinical feature of chronic infection by *Strongyloides stercoralis* that consists of a pruriginous wheal surrounded by a flare, is typically evanescent and highly pruritic, and appears on the trunk.<sup>7</sup> Myiasis, impetigo, and tinea pedis could also be considered on the differential diagnosis in appropriate circumstances.

The rash of cutaneous larva migrans is self-limited and heals spontaneously within a few weeks. This condition is usually treated to alleviate pruritus. Thiabendazole (topical or oral) is currently considered the agent of choice. Both albendazole and ivermectin have been effective and can be well tolerated.

Deworming dogs or prohibiting them from beaches can help to reduce the likelihood of cutaneous larva migrans. Wearing shoes or sandals as well as not sitting or lying on dry sand are also useful measures.

This patient presented with an intense pruritic, linear, bullous reaction. While most presentations of cutaneous larva migrans are itchy and have a linear configuration, the bullous reaction is less frequently encountered. The history of travel to a tropical area and the serpiginous pattern of the bullae were diagnostic. Oral thiabendazole treatment was administered for 4 days with progressive healing of the lesion.

This condition should be suspected in patients with the combination of a history of travel to tropical areas and an intensely pruritic, migratory, serpiginous eruption. It must be considered as immigration and leisure travel to tropical areas are increasing.<sup>3,8</sup>

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**Correspondence:** Iván Sánchez Fernández, MD, Department of Pediatrics, Hospital Sant Joan de Déu, Passeig de Sant Joan de Déu, 2, 08950 Esplugues de Llobregat, Barcelona, Spain (isanchez@hsjdbcn.org).

**Author Contributions:** *Study concept and design:* Sánchez Fernández, Julià Manresa, and Vicente Villa. *Acquisition of data:* Sánchez Fernández, Julià Manresa, and González Ensenat. *Drafting of the manuscript:* Sánchez Fernández and Julià Manresa. *Critical revision of the manuscript for important intellectual content:* Sánchez Fernández, Julià Manresa, González Ensenat, and Vicente Villa. *Administrative, technical, and material support:* Sánchez Fernández and Julià Manresa. *Study supervision:* Sánchez Fernández, Julià Manresa, González Ensenat, and Vicente Villa.

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