

Bullous Cutaneous Larva Migrans

Cutaneous larva migrans (CLM) is one of the most common skin diseases among travelers returning from the tropics (1,2). The disease is endemic on Caribbean islands, in Africa, South America, Southeast Asia, and the central and southeastern states of the US. In Europe, only sporadic cases have been reported among travelers returning from tropical countries.

CLM is clinically characterized by slightly raised and erythematous single or multiple, linear or serpiginous tracks occurring on the feet or other exposed sites. Bullous CLM is a rare form of CLM. Diagnosis is usually made from the patient's history and the characteristic clinical appearance of the lesions (3).

A 53-year-old man presented with a one-month history of intense pruritus on the back surface of his right foot associated with multiple bullous lesions localized on the fourth finger of the right foot. The patient reported good general health and no systemic therapy; four weeks before, he had returned from a trip to Mexico. The patient denied application of any topical medicaments on the lesions.

Dermatologic examination revealed the presence of multiple blisters, round or oval in shape, with a clear serous fluid. A serpiginous, linear track was visible (Fig. 1). General physical examination did not reveal any pathologic finding. Laboratory tests were normal including eosinophil count, total IgE, inflammatory tests, stool microscopy and culture, and x-ray. Cytological examination of a blister showed the presence of a mixture of inflammatory cells with a predominance of eosinophils. Based on clinical history and features, a diagnosis of bullous CLM was made. The patient was treated with oral albendazole (400 mg/day for 7 days) and at 3-week follow-up, the eruption had resolved completely.

CLM, also known as creeping eruption, ground itch, plumber's itch, sand worms and linear serpiginous dermatitis, is a dermatitis caused by filariform larvae of zoonotic hookworms. In contrast to human hookworms, they complete their life cycle in animals and use humans as incidental dead-end hosts (4). The

most common cutaneous hookworms are the cat and dog hookworms, *Ancylostoma braziliensis* and *Ancylostoma caninum*, respectively, which live in the intestines of cats and dogs. CLM may rarely be caused by *Uncinaria stenocephala*, *Bunostomum phlebotomum* and *Ancylostoma ceylonicum* (4).

The hookworm eggs are passed with stools onto sandy warm soil, which serves as a rich incubator. The eggs feed on soil bacteria and 24 hours later mature into non-infectious rhabdoid larvae. After one week, they mature into infectious filariform larvae (4). The larvae then penetrate intact human skin that comes in contact with the infected soil. Initially, the patient has a tingling or prickling sensation. Several hours later, a reddish-brown pruritic papule develops. The erythematous site is usually located 3 to 4 cm away from the penetration site, as they travel along the epidermis, creating characteristic serpiginous lesions. Finally, the larvae die and are resorbed. Thus, larva migrans is self-limiting in most cases.

The bullous form of CLM is rare; in the literature, we found only six cases of frankly bullous CLM (4).



Figure 1. Serpiginous, erythematous track associated with multiple blisters on the right foot.

The pathogenesis of blister development is unknown, some authors hypothesize that blisters might be the result of a delayed hypersensitivity reaction due to the release by larvae of unknown antigens or because of the release by larvae of lytic enzymes (4,5).

Cutaneous larva migrans can be treated with topical application of thiabendazole or cryotherapy. Systemic drugs such as thiabendazole, albendazole and ivermectin, represent the first choice in the treatment of the bullous form of CLM.

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Violette cream - for "facial rejuvenation" in 3 days; year 1929.
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