

## Clinical photo quiz: a foot problem

### 臨床照片猜謎：一個足部的問題

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#### Case scenario

A 28-year-old lady complained of right foot itch for one week (Figure 1). She had no systemic upset. She could not recall any significant injury but she had walked barefoot on a beach in Malaysia 10 days before attending our department.

#### Questions

1. What is the clinical diagnosis?
2. What is the cause of this condition?
3. What is the treatment plan?



**Figure 1.** The right foot on presentation.

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## Answers

1. Cutaneous larva migrans
2. Cutaneous larva migrans is caused by larvae of various nematode parasites (cat and dog hookworms).<sup>1</sup>
3. Treatment may include symptomatic therapy (e.g. topical application of a glucocorticoid), topical and systemic anthelmintic agents (thiabendazole, ivermectin or albendazole).<sup>2</sup>

## Discussion

Cutaneous larva migrans (CLM) is predominantly reported in tropical and subtropical zones. It is an eruption caused by percutaneous penetration and migration of larvae of various animal nematodes.<sup>1</sup> It is characterised by erythematous, serpiginous, vesicular, linear, or papular lesions that correspond to the movements of the larvae. The most common cause of CLM is *Ankylostoma braziliense*.<sup>1</sup> The normal hosts for these nematodes are dogs and cats which pass ova with their stool. Beaches and sandboxes are common reservoirs. The ova optimally hatch in warm, shady and moist area into larvae that penetrate human skin quickly upon contact. The larvae then induce localised eosinophilic inflammatory reaction and give rise to pruritic erythematous tracks. Unlike in animals, the larvae cannot pass through the human epidermal basement membrane.<sup>2</sup> Attempts to extract the larvae is not advised because the parasite is not in a visible

location.<sup>1</sup> Its actual location is usually 1 to 2 cm beyond the erythematous track.<sup>2</sup>

CLM is a clinical diagnosis. Peripheral eosinophilia may be observed. Skin biopsy is usually not helpful.<sup>2</sup> Differential diagnosis include dermatophytosis, granuloma annulare, scabies, jelly fish sting, erythema migrans of Lyme borreliosis, larva currens, phytoallergic contact dermatitis.<sup>1</sup>

CLM is a self-limiting disease. Most larvae die after days or months. The eruption may resolve within 2 to 8 weeks.<sup>1</sup> The treatment of CLM includes topical applications (thiabendazole, ivermectin and albenadazole) and systemic use of anthelmintics (thiabendazole, mebendazole, albenadazole and ivermectin).<sup>1,2</sup> Antihistamines and topical steroids may be used for symptomatic relief of the skin itch. Oral antibiotics are used for secondary bacterial infection.<sup>2</sup>

People who travel to tropical regions should be aware of this disease entity.

## References

1. Wolff K, Johnson RA, Suurmond D. Fitzpatrick's color atlas and synopsis of clinical dermatology. 5th ed. New York: McGraw-Hill;2005:862-64.
2. Juzych LA, Douglass MC. Cutaneous larva migrans. eMedicine. [updated 2006 Apr 10; cited 2007 Oct 28] Available from: <http://www.emedicine.com/derm/topic91.htm>