



Cutaneous Larva Migrans at an Unusual Site: A Case Report

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Abstract

The terms cutaneous larva migrans (CLM) and creeping eruption have been used as synonyms for decades. Whereas cutaneous larva migrans describes a syndrome on the other hand creeping eruption is a clinical sign, present in a variety of dermatological conditions. A creeping eruption is clinically defined as a linear or serpiginous, slightly elevated, erythematous track that moves forward in an irregular pattern. Hands, feet, buttocks, and back are the usual sites of infection. Cases confined to the penis are very rare with the mode of larval entry being unclear in such cases. We report a case of cutaneous larva migrans confined to penis.

Keywords: *Cutaneous larva migrans, creeping eruption, serpiginous.*

Introduction

Cutaneous larva migrans (CLM) commonly known as “creeping eruptions” is a distinctive cutaneous eruption caused by the invasion and migration of larva of parasites in the skin.¹ It occurs on exposure of the skin to the infective filariform larvae of non-human hookworms and strongyloides. It can also be caused by Gnathostoma spinigerum and also sometimes by insect larvae. Clinically it is characterized by serpiginous eruption usually confined to the skin of the feet, buttocks or abdomen. Isolated occurrence of CLM on the penis is very rare and hence, rarely reported.² We report a very rare case of CLM confined to the penis.

Case Report

This young adult, uncircumcised male presented to us with severe itching of the genitalia which started 2 weeks ago. There was no family history of itching. He had been treated with antiscabitic treatment by a private practitioner with no relief. He was non-diabetic and was not on any medication. There was no history of any extramarital contact or a recent travel to a coastal area. On examination, he was a healthy adult, the only finding being a raised, grayish white, tortuous skin lesion over the dorsal surface of prepuccial skin starting from the junction of distal one third and middle one third of the penis with an active end moving proximally in a serpiginous fashion [Figure 1]. The clinical picture was typical

of larva migrans. He was treated with albendazole 400 mg once a day for 3 days with complete relief of symptoms and resolution of the lesion within a week [Figure2].



Figure 1: A linear serpentine lesion on the Prepuce and shaft of the penis.



Figure 2: Complete resolution of lesion 1 week after treatment

Discussion

Cutaneous larva migrans (CLM) also known as creeping eruption, sandworm eruptions, plumber's itch and duck hunter's itch are lesions that migrate or creep on the skin producing peculiar dermatitis due to the presence of moving parasites in the skin.³ CLM has a worldwide distribution though it is common in the warm humid tropics and subtropics. Its occurrence is influenced by poor sanitation and appropriate environmental conditions.¹ Numerous organisms can cause cutaneous larva migrans; *Ancylostoma braziliense*, *Ancylostoma caninum*, *Ancylostoma ceylonicum*, *Uncinaria stenocephala*, and *Bunostomum phlebotomum*.³ *A. brasiliensis* and *A. caninum* (the dog and cat hookworms) are the most common amongst all.⁴ Depending upon the species responsible for the lesions and their clinical appearance CLM can be grouped into following types: Type 1 (caused by animal hookworms), type 2 (by human hookworms), type 3 (by human strongyloides), type 4 (by animal strongyloides), type 5 (by *Gnathostoma*), and type 6 (by insect larva).¹ Humans acquire the infection from places like sandpits, seashore, or areas with loose wet soil. Gardeners, hunters, children who play in sandpits, and people who frequently visit the beaches are the ones who come into contact with such soil and gets affected.³ Activities such as walking barefoot on a beach, working in the garden and playing in sandpits increases the risk of getting infected through minor abrasions or even intact skin through the hair follicles.⁴ Humans are the dead-end hosts as most of the larvae are unable to undergo further development in humans and die within 2-8 weeks' time. The incubation period ranges from 1 to 6 days. The larvae migrate through the epidermis and upper dermis most often at night, producing secretions with hyaluronidase activity that aid in skin penetration and migration. As it burrows through the skin, a localized inflammatory reaction is seen due to the combined effects of antigenicity of the parasite and their proteolytic secretions, resulting in the

characteristic pruritic inflammatory at serpigenous lesion.² The tortuous, linear thread-like lesions start with an advancing end and move a rate of about 2 mm–3 cm/day.³ Initially the lesion starts as an erythematous itchy papulovesicular lesion gradually developing into a slightly raised flesh-coloured swollen lesion.² Usual sites of infection are the feet (interdigital spaces, dorsa of feet and the medial aspect of soles), buttocks and hands.⁴ Sugathan reported a case of massive infestation of cutaneous larva migrans affecting the whole body in the year 2002. Large number of larvae may be active at the same time leading to the formation of a disorganized series of loops and tracks. The larva usually lies in front of the head of the track. Uncommon manifestations include vesiculobullous lesions along the tracks and folliculitis. Severe itching ensues commonly leading to excoriation and secondary infection making the diagnosis difficult at times.^{3,4} The disease is usually self-limiting but the symptoms and possible complications warrant treatment. Biopsy is of no value in diagnosis as the larva advance ahead of the clinical tract. However, epiluminescence microscopy, a non-invasive method, detects the larva and confirms the diagnosis. Although various modalities of treatments have been used, albendazole is considered to be the drug of choice and is used in a dosage of 400–800 mg/day for a period that may vary from 1–7 days. Single dose ivermectin (150–200 µg/kg) is suggested by some authors to be the best treatment.² Various physical treatments including surgery and cryotherapy have been tried with little success as the larva is easily missed, being ahead of the serpigenous tract.^{1,2} Topical treatments like 15% thiabendazole, 2% Gammexane cream, 25% piperazine citrate, and metrifphonate have also been used. Although eradication of larva causing CLM is impractical, but avoiding contact with contaminated soil can prevent it.¹

Source of Support: Nil

Conflict of Interest: None Declared

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