

## CUTANEOUS LARVA MIGRANS - A CASE REPORT

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### Abstract

Cutaneous larva migrans or creeping eruption is one of the most common acquired tropical dermatosis caused by the filariform larvae of hookworm. We report a case of 55 years old female patient, farmer by occupation with cutaneous larva migrans over anterior abdominal wall which is an unusual site and was treated successfully with oral albendazole. We present this case for its occurrence on an unusual site.

**Key words:** Creeping eruption, Cutaneous larva migrans.

### Introduction

Cutaneous larva migrans (syn, creeping eruption, sand worm eruption, plumbers itch, duck hunters itch) is common tropically acquired dermatosis caused by the accidental penetration of skin by third-stage larvae of animal hookworm; *Ancylostoma brasiliense*, *A. caninum*, *A. ceylonicum*, *Uncinaria stenocephala*, and *Bubostomum phlebotomum*.<sup>[1]</sup> *A. brasiliense* (dog hookworm) is the commonest cause of these creeping eruptions in humans who act as dead-end hosts. The adult worms inhabit the small intestine of human, mainly jejunum and attach themselves to the mucous membrane by means of buccal armature and causes anemia. Cutaneous parasitic infestations are major source of morbidity affecting millions of people worldwide and tropical climate; overcrowding, poor hygiene and sanitary problems play very important role in their causation.<sup>[2]</sup> Humans acquire the infection while walking barefoot on sandpits, seashore or areas with loose and wet soil. Most frequent sites of infection are distal extremities, back, and buttocks.<sup>[3]</sup>

### Case Report

A 55-year old female presented with the complaint of intensely itchy serpiginous lesion on the anterior abdominal wall of eight weeks duration. The eruption progressed daily, despite the application of some lotion to the eruption. She gave no history of trauma or bathing in ponds. She had no associated cough, wheezing, urticaria or fever. On examination, there was an erythematous, raised, curvilinear tract of approx. 25 cms long on the anterior abdominal wall, healing at one end and progressing at the other. [Figure 1a & 1b] The clinical picture was typical of cutaneous larva migrans. [Figure 2a & 2b] Systemic examination and routine laboratory investigations were within normal limits.

She was treated with albendazole 400mg once a day for 3 consecutive days, pruritis diminished within 48 hours and the lesion showed signs of healing with hyperpigmentation 1 week after the initiation of treatment.



**FIGURE 1 (a,b) :** Characteristic curvilinear serpiginous erythematous lesions on the anterior abdominal wall



**FIGURE 2 (a,b) :** A curvilinear tract, about 25 cms long on the anterior abdominal wall, healing at one end and progressing at the other

## Discussion

Creeping eruption is a parasitic dermatosis caused by the penetration of larvae of hookworm into the epidermis of human.<sup>[4]</sup> It is most commonly found in tropical and subtropical geographic areas and the southwestern United States with an overall prevalence of 8.2% . It has become an endemic in the Central America, South America, Southeast Asia, and Africa. It is characterized by an erythematous, serpiginous, pruritic, cutaneous eruption caused by percutaneous penetration and subsequent migration of the larvae of various nematode parasite.<sup>[5]</sup> The most frequent location is the distal lower extremities or buttocks. The most common cause is *Ancylostoma braziliense* and less common species are *Ancylostoma caninum*, *Uncinaria stenocephala* and *Bunostomum phlebotomum*.<sup>[3]</sup> The incubation period ranges from 1-6 days. Every larvae produces a single tract and migrates at a speed of 1-3cm/day in epidermis because of lack of enzymes necessary to penetrate and survive in the deeper dermis. In our patient, diagnosis was based on clinical features as there was no history of fever, pulmonary or intestinal symptoms. Biopsy is not much useful as the larvae may advance upto 2cm ahead of the visible burrow. Extensive lesions can be associated with wheezing, dry cough and urticaria. Creeping eruption is a self-limiting dermatosis which usually resolves in 2-8 weeks but rarely may persist for 2 years and the prognosis is excellent. Secondary infection and eczematization are common complications. Now a days, treatment of choice is 10% to 15% topical thiabendazole suspension, made by crushing a 500mg tablet of thiabendazole in 5g of a water-soluble cream, applied four times a day, for atleast 2 days after the last sign of burrow activity. This regimen is of great efficacy and least toxicity. Oral thiabendazole suspension of 500mg/5ml can be used twice per day for 2 days. Other useful drugs are albendazole 400mg/day for 3 consecutive days and oral ivermectin 150-200 ug/kg as a single dose.<sup>[6]</sup> Albendazole is a powerful anthelmintic against infections

caused by intestinal nematodes and was first used to treat creeping eruption in 1982.<sup>[7]</sup> Liquid nitrogen cryotherapy can be used for a progressive end of larvae burrow. Avoidance of direct skin contact with contaminated soil by covering the ground with impenetrable material, wearing footwears, avoiding bare feet walking, and de-worming the pets are preventive measures. Literature review showed that only very few case with lesions on anterior abdominal wall have been reported till date so we present this case for its rarity. We conclude that sporadic cases of creeping eruption should be kept in mind in differential diagnosis of any creeping lesion even in non-endemic areas.

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