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Cutaneous larva migrans: A case report

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Abstract

Cutaneous larva migrans, also known as ‘creeping eruption’ is a parasitic skin infection caused by penetration of hookworm larva into human epidermis. The lesion of CLM comprises of a pruritic, erythematous, linear tract, which appears after a long period after exposure to infested sand or soil. In present times it is uncommon to find an occurrence of this disease. Hence we hereby present the case of a 10 year old male child who presented with history of swelling, redness and bleeding from right foot with a history of an insect bite. On examination there were multiple blisters and oedema of the leg which progressed to a serpigenous lesion on the foot. He was treated with Albendazole and a dose of Ivermectin and the lesion dried up a week later. The diagnosis is mostly clinical and a complete resolution is usually seen after treatment with oral albendazole.

Keywords: Cutaneous larva migrans, creeping eruption

1. Introduction

Cutaneous larva migrans is a parasitic skin infection which is characterized by progressive linear or serpigenous lesions most commonly seen over the dorsum and soles of the foot. It is acquired in humans due to skin penetration by the hookworm larvae. Tropical climates, overcrowding, poor hygiene, and sanitation problems are the risk factors usually involved in this disease [1]. *Ancylostoma duodenale* also called “old world hookworm” and *Necator americanus* also called “new world hookworm” are the most common intestinal parasites found to cause creeping eruptions. The most common causative organisms include *Ancylostoma braziliense*, *Ancylostoma caninum*, *Necator americanus*, *Uncinaria stenocephala* and *Strongyloides stenocephala* [2].

2. Case Report

10 year old male child presented with history of swelling, redness and bleeding from right foot with history of insect bite about a week back. On examination there were multiple blisters, lesions with swelling of foot. The oedema extended upto mid leg area. The child was treated with Albendazole, a single dose of Ivermectin, anti inflammatory and anti allergic drugs. The patient was reviewed after 4 days which showed serpigenous lesion over right foot suggestive of cutaneous larva migrans.



Fig 1: Cutaneous Larva Migrans

Fig 2: Healing Lesion

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The blood investigations revealed TLC 10,000/cmm and Eosinophils 8%. Blood sugar levels were within normal limits. Urine routine examination was within normal limits. About a week after, the lesions were prominent and showed the typical picture of cutaneous larva migrans. With the treatment lesion dried up within a week and within a fortnight lesion dried up completely and the child was feeling alright.

3. Discussion

Cutaneous larva migrans (CLM) is a serpiginous eruption which is confined to the skin. It is due to a hypersensitivity reaction of the body to the hookworms and their byproducts. The interdigital spaces of toes, dorsa of feet, and medial aspect of sole are the most common sites of entry of these hookworms. Dermatitis and creeping eruptions are the two common types of lesions seen in response to the entry of these organisms [3, 4, 5].

The normal hosts for these hookworms are cats and dogs, in which the eggs pass through the feces. The eggs optimally hatch in warm, shady, moist, sandy soil found in tropical and subtropical areas. Humans are infected with the larvae by walking barefoot on the sand. The larvae quickly penetrate the skin upon contact.

The patient with cutaneous larva migrans (CLM) may feel a stinging sensation at the site of penetration of the larvae. An erythematous papule or a nonspecific dermatitis can develop hours after penetration. The most common location for penetration is the feet (39%), from walking barefoot in the sand, followed by the buttocks (18%) and the abdomen (16%).

Migration of the larvae through the skin occurs from a week to several months after initial penetration. The rate of larval migration is from 2 mm to 2 cm per day, depending on the species of larva. Unlike in animals, the larvae are unable to penetrate the epidermal basement membrane of human skin; therefore, the larvae roam haphazardly in the epidermis and are unable to complete their life cycle.

An allergic immune response of the patient to the larvae or byproducts causes the pruritic erythematous track. The actual location of the larvae is usually 1-2 cm beyond the erythematous track. Untreated lesions resolve after the larvae die within weeks to months.

Diagnosis of cutaneous larva migrans is based on physical examination and history. A peripheral eosinophilia may be observed.

Treatment of choice involves use of antihelminthics. It takes 24-72 hours for the resolution of pruritus and the serpiginous tracts resolve within 7-10 days [6, 7]. Antihistamines and topical corticosteroids can be used with antihelminthics for symptomatic relief of pruritus. Oral antibiotics are used if secondary infection or cellulitis is associated.

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