Cutaneous larva migrans or creeping eruption is an uncommon parasitic skin infection caused by the filariform larvae of dog or cat hook worms. We report a case of larva migrans on the anterior abdominal wall, in a 52 year old lady, who did gardening as a hobby.

Key words: Creeping eruption, Cutaneous larva migrans

Cutaneous parasitic infestations are a major source of morbidity affecting millions of people worldwide. Tropical climates, overcrowding, poor hygiene and sanitation problems play a very important role in the causation of these diseases. Ankylostoma duodenale also called “The Old World hook worm” and Necator americanus or “The New World hook worm”, are common intestinal parasites, widely distributed in all tropical and subtropical countries. The adult worms inhabit the small intestine of man (particularly jejunum), attaching themselves to the mucous membrane by means of their powerful buccal armature and causing anaemia.

Man gets infected, when walking barefoot on soil contaminated with faeces. The filariform larvae penetrate directly through the skin with which they come into contact. The most common sites of entry are the interdigital spaces of toes, dorsa of feet, and medial aspect of sole. In case of gardeners and miners, skin of hands may be a portal of entry. Two types of skin lesions can be produced; dermatitis and creeping eruptions.

Creeping eruptions are more common with A. braziliense and A. caninum, which are not adapted to man and hence cannot proceed to normal development in small bowel. Mapstone in 1933 described such lesions in tea garden coolies in India, with the larvae of N. americanus. A case of creeping eruption on the abdominal wall is being reported.

Case Report

A 52 year old housewife presented with the complaint of intensely itchy serpiginous lesion on the anterior abdominal wall of four weeks duration. She applied topical antifungal agents but to no avail. On examination there was an erythematous, curvilinear tract, about 25 cms. long, on the anterior abdominal wall, healing at one end and progressing at the other (Fig). She did gardening as a hobby and reported to have changed the manure in potted plants recently, about 3-4 weeks prior to the complaint. She did not have any house hold pets. Baseline haematological and biochemical investigations were within normal limits.

A clinical diagnosis of cutaneous larva migrans was entertained. She was treated with systemic albendazole and topical cryotherapy. She returned a week later with a similar lesion in the left inframammary region while the lesion on the anterior abdominal wall was showing signs of regression. The lesion in the inframammary region was 8 cms. long curvilinear tract. A repeat cryotherapy was performed. The lesions did not recur.

Discussion

Cutaneous larva migrans is also known as “sand worms”, creeping verminous dermatitis, creeping eruption, plumber’s itch and duck hunter’s itch. Numerous etiological agents can cause creeping eruption like Ankylostoma caninum and A. braziliense, Uncinaria stenocephala, Gnathostoma spp.,...
**Dirofilaria conjunctivae, Capillaria spp., etc.**

Creeping eruption occurs when the larvae of dog or cat hook worms (*Ankylostoma caninum* and *A. braziliense*) penetrate intact, exposed skin and begin migrating through the epidermis. The most common location is the sole, although other sites like buttocks, backs and thighs, which may have rested on contaminated sand, are susceptible. Lacking the enzymes necessary to penetrate and survive in the deeper dermis, the larvae wander a serpiginous route at a speed of 3 cm. per day. Clinically, the primary lesion is a pruritic, erythematous serpiginous burrow. While the larvae die usually in 2-8 weeks, survival up to two years has been reported. The incubation period ranges from 1-6 days.

Creeping eruption is a self limited dermatosis. Secondary bacterial infection and eczematization are some complications. Extensive lesions can be associated with wheezing, dry cough and urticaria. *A. caninum* larvae can migrate to the small intestine and cause eosinophilic enteritis. Transient eosinophilia is also described. Biopsy is of no value as the larvae advance ahead of the clinical tract. Epiluminescence microscopy is an effective non-invasive method to detect larva and confirm the diagnosis.

The lesions disappear in 2-8 weeks but rarely may persist for 2 years. Freezing the leading point of the burrow is an effective older method of treatment. This sometimes produces significant tissue destruction. The larva is up to 2 cm. ahead of the visible burrow, and hence may cause treatment failure.

The treatment of choice is 10% topical thiabendazole suspension applied four times a day, for at least 2 days after the last sign of burrow activity. This regimen is of great efficacy and least toxicity. Rare cases can be treated with oral thiobendazole. Other useful drugs are mebendazole, albendazole and oral ivermectin (150-200 µg/kg as a single dose).

**References**


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