

# A serpiginous burrow on the foot

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**A man presents with pruritic, serpiginous cords on his left foot. What are these lesions and how should they be treated?**

After a beach holiday in Thailand, a 23-year-old man developed pruritic, serpiginous cords on the sole and medial aspect of his left foot (Figure 1). The cords had commenced with an itchy papule, which over the following three weeks formed an erratic intersecting pattern with focal areas that were eroded, crusted, pustular or haemorrhagic. A skin biopsy showed subepidermal and intraepidermal blisters with eosinophils that extended diffusely into the underlying dermis and subcutis (Figure 2). No organisms were seen.

## Diagnosis

The differential diagnosis for this distinctive presentation includes the following conditions.

- **Porokeratoses** are clonal disorders of keratinisation. They form annular lesions with a fine keratotic rim that coalesce to produce a serpiginous pattern. These lesions are asymptomatic, are usually longstanding and lack a history of progressive growth over weeks. Skin biopsy shows a column of keratin with retained nuclei projecting from the epidermis, marking the disordered clone.
- **Elastosis perforans serpiginosum** is associated with arciform lesions with a keratotic and papular rim that has crusted foci. The lesions are usually present over the sides of the neck and upper limbs. They are asymptomatic. Skin biopsy shows transepidermal elimination of altered elastic fibres through the epidermis.
- **Caterpillar dermatitis** is associated with erythematous and vesicular lesions and is not usually cord-like. The lesions do not have a progressive history of extension. Skin biopsy shows superficial lymphocytic inflammation with eosinophils and intraepidermal blisters.
- **Cutaneous larva migrans** is the correct diagnosis and is due to burrowing dog or cat hookworms (*Ancylostoma* genus).

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Figure 1. Focally crusted and eroded cords forming a serpiginous pattern over the patient's left sole.

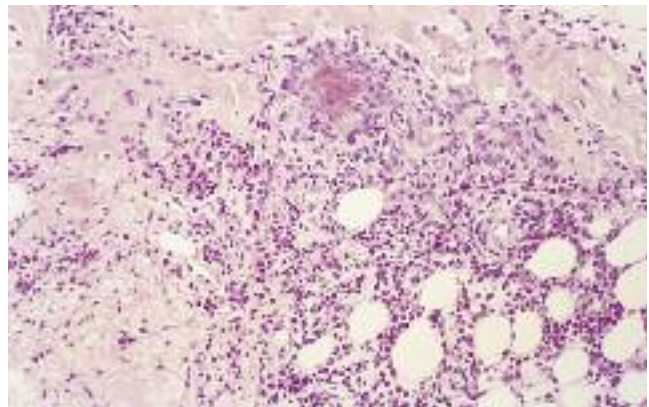


Figure 2. Skin biopsy demonstrating dense eosinophilia in the dermis and fat with focal collagen necrosis.

Beaches in the tropics and subtropics are often contaminated by *Ancylostoma* larvae. The lesions are usually concentrated on the lower extremities but may develop in any area that has been in contact with moist sand.

Larva migrans is a self-limited infection because the worm does not have the capacity to produce visceral infestation or complete its life cycle. Hypereosinophilia or eosinophilic pneumonitis (Loeffler's syndrome) may occur. The infestation usually lasts two to eight weeks, but it may persist for longer.

The current treatments of choice are ivermectin (Stromectol; 200 µg/kg or 12 mg in a single dose) or albendazole (Eskazole, Zentel; 400 mg per day for five to seven days). These treatments have superseded oral thiabendazole, which was associated with frequent side effects. Local cryotherapy and topical thiabendazole have been used, but these therapies may be associated with relapses.

## Keypoint

Larva migrans has a distinctive clinical presentation and is due to infestation by dog or cat hookworms. MT