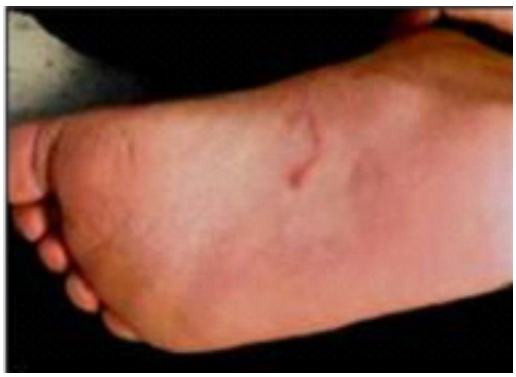
SPOT DIAGNOSIS (IMAGE GALLERY)



PRURITIS IN A 12 YEARS OLD GIRL

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A 12-year-old girl presented with an itchy rash on her left planter surface of the foot which had started 2 weeks ago with symptoms progressively worsening. She also noticed a small raised lesion over the itchy area which had increased in size. She had applied various preparations, such as topical hydrocortisone, calamine lotion, antifungal spray, and oral antihistamines but there was no relief. The family had spent the summer vacations in their grandparents' home at Orissa, where the children played in sand and swam in the ocean. On examination of foot, on the plantar surface of her left foot was a 3.5-cm raised, nontender, erythematous, serpiginous lesion {Fig. 1}.

What is the diagnosis?

Cutaneous larva migrans {CLM}. It is also known as creeping eruption. It is a caused by skin penetration by larval hookworms. The diagnosis is made clinically, based on history and physical examination findings. It can be caused by various species of hookworm larvae, the most common is Ancylostoma braziliense, a hookworm found in dogs, cats, and other mammals. Less commonly, human hookworms such as Strongyloides stercoralis, Necator americanus, and Ancylostoma duodenale can cause CLM.{1} It is prevalent in tropical and subtropical areas, where the climate is hot and humid specifically Southeast Asia, the Indian subcontinent, the Caribbean Islands, Central and South America, Africa, and Australia. The patient often has a history of walking barefoot, sitting, or lying on the sand in an area inhabited by cats or dogs. The adult worms lay eggs in the small intestines of these animals, and the eggs are excreted in the feces. The eggs hatch in the soil and develop into infective larvae that penetrate human skin on contact and remain in the stratum germinativum {the basal or deep layer of the epidermis}. The larvae secrete hyaluronidase, which allows them to move within the human epidermis. The larvae are 1 to 2 cm ahead of the visible skin eruption, hence the term creeping eruption. Because the larvae cannot complete their life cycles within the human epidermis, they die weeks to months after skin penetration. Although CLM is a self-limited infection, the patient`s discomfort due to intense pruritus usually necessitates treatment. The differential diagnosis of CLM includes scabies, tinea pedis, molluscum contagiosum, cutaneous leishmaniasis, and allergic contact dermatitis.{2} Currently, the recommended treatment of CLM is oral antihelminthic therapy. The agents of choice are albendazole 15 mg/ kg per day every 12 hours for 3 days or ivermectin 150 to 200 mcg/ kg per day for 1 to 2 days. Surgical excision is not recommended because it does not result in a good cure rate {partly due to the larvae being 1 to 2 cm ahead of the lesion, making it difficult to target therapy in the correct area} and can cause complications such as pain and bleeding.{1} Topical therapies such as a 5-day course of topical thiabendazole also have been used with moderate success.

References:

1. Caumes E, Ly F, Bricaire F. Cutaneous larva migrans with folliculitis: report of seven cases and review of the literature. Br J Dermatol. 2002; 146: 314 -316
2. Blackwell V, Vega-Lopez F. Cutaneous larva migrans: clinical features and management of 44 cases presenting in the returning traveler. Br J Dermatol. 2001; 145: 434 -437

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