

Answer to Photo Quiz: *Tunga penetrans*

(See page 1 in this issue [doi:10.1128/JCM.00525-13] for photo quiz case presentation.)

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For both patients, considering the characteristics of the lesions, the epidemiological history of travel, and the microscopic study, a diagnosis of tungiasis was made.

Tunga penetrans (sand flea) is a hematophagous flea 1 mm in length, whose habitat is warm, dry, sandy soils. This flea is widely distributed in parts of East and West Africa, South America, and the Caribbean and in countries bordering the Indian Ocean. This flea presents a wide range of wild and domestic hosts, humans being an accidental host. Occasionally, tourists from developed countries are diagnosed with tungiasis after becoming infected in areas where the disease is endemic (1–4).

Tungiasis is a cutaneous ectoparasitosis produced by penetration of the fertilized female flea. Clinical manifestations consist of 2- to 3-mm erythematous or brown-black papules, with a central black dot which corresponds to the back of the abdomen of the flea, where it breathes and eliminates eggs measuring 0.5 to 0.7 mm (length) by 0.2 to 0.3 (width). These lesions may be asymptomatic, pruritic, or painful. The display of typical eggs and suggestive remains of the parasite confirms the diagnosis (1).

The recommended treatment is early removal of the flea under sterile conditions either by curettage or by needle extraction. After extraction, topical antimicrobials may be used. For the most severe forms, oral administration of thiabendazole at 25 mg/kg of body weight/day for 5 to 10 days is recommended. In these cases, oral antimicrobials may also be necessary and tetanus prophylaxis must also be assessed.

Usually, this disease has a self-limiting course. The bacterial

infection is the most common complication when lesions are multiple. There have been reports of cellulitis, gangrene, and tetanus. Prevention for travelers in areas of endemicity involves the use of protective footwear and avoidance of sitting or lying on the sand or areas inhabited by this flea. Use of repellents during trips is also recommended.

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