**CASE REPORT**

**Tunga penetrans**

acquired while travelling in Africa

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**EM PROCTOR. Tunga penetrans acquired while travelling in Africa. Can J Infect Dis 1994;5(2):82-83.**

Three cases of tungiasis acquired in the course of travel are briefly described, and the biology of the jigger flea, *Tunga penetrans*, is reviewed.

**Key Words:** Jigger flea, Tungiasis

**Tunga penetrans acquis lors d'un voyage en Afrique**

**RÉSUMÉ :** Brève description de cas de sarcopsyllose acquise durant un voyage et des paramètres biologiques de la puce-chique *Tunga penetrans*.

**BETWEEN SEPTEMBER AND NOVEMBER 1992, THREE CASES of tungiasis or tungosis were identified in British Columbia residents who had travelled to Africa.**

**CASE ONE**

A 35-year-old female nurse who had been on assignment for one month in southern Tanzania, in the district of Ulanga, developed an unusual sensation in the second toe of the right foot. She thought it might be a splinter and continued to experience an uncomfortable feeling. By the time she returned to Canada the toe was inflamed and slightly swollen. A few days after her return she poked at the swelling with a needle and a mass of eggs was extruded. The toe bled considerably after the eggs had been squeezed out. The eggs, which measured 700 μm by 350 μm, were opaque with rounded blunt ends and appeared to be cemented together. The patient did not recall being bitten and most of the time wore closed shoes, the exception being the odd occasion when it was extremely hot and she wore open sandals. She slept under some form of netting each night except on one occasion when she bedded down on the floor of a makeshift dispensary. Material submitted to the Armed Forces Institute for Pathology (AFIP), Washington DC, was identified as adult flea and eggs of *Tunga penetrans*.

**CASE TWO**

A 67-year-old female who had visited Kenya for a two-week period presented to her physician with a painless lesion on the sole of the foot. A small quantity of friable white tissue curetted from the lesion, which was thought to be a 'worm-like structure and grubs', was embedded and sectioned (Figure 1). A preliminary diagnosis of tungiasis was made based on the appearance of structures seen in the sections. The patient had only walked barefooted in her bungalow. The material was submitted to AFIP, where it was identified as broken-up sections of an adult female flea. Subsequently, additional keratin-like material suggestive of the leg of a flea was surgically removed from the lesion.

**CASE THREE**

A 33-year-old male geologist on assignment in Tanzania developed an abscess on the fifth toe of the right foot. He noticed redness around the toe, which became swollen and itchy and for which a topical preparation was prescribed. By the time he returned to Canada.
Figure 1) Section of embedded friable tissue curetted from the lesion showing developing eggs (e) and tracheae within the body (arrows) of the insect, x30.

Chigoe fleas commonly burrow between the toes, under the toe nails or the sole of the foot, although they may attack any exposed area of the body. The symptoms of tungiasis are mainly pain or intense pruritus of the affected area, resulting in continuous scratching. The flea initially appears as a minute black spot in the skin, but as it enlarges, an erythematous papule develops. This itches and becomes painful; fleas beneath the nails are especially painful.

When recognized, the fleas should be removed intact by carefully peeling back the keratin with a needle or other sharp instrument. The flea should then be gently extracted and the crater cleansed and dressed. Prophylactic measures should include protection of susceptible areas by wearing proper footwear and the maintenance of clean conditions inside human dwellings.

Tungiasis is usually innocuous; however, secondary infections including tetanus and other clostridial organisms that result in gas gangrene kill many patients in tropical Africa (2).

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REFERENCES
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