



Outbreak of myiasis

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To the Editor: We report 6 cases of cutaneous myiasis in persons with no history of travel to high-risk areas, seen in general family practices in Irene and Eldoraigane, Pretoria, within the first 2 weeks of February 2006.

Myiasis is the term used to describe the invasion of animal or human tissue by the larvae (maggots) of various flies. In tropical Africa *Cordylobia* spp. is a common cause of cutaneous (furuncular) myiasis.¹

The larvae themselves do not carry infectious agents but may cause a painful lesion, which may become secondarily infected. Cutaneous disease caused by these larvae presents as furuncular or boil-like lesions. The larvae reside in the dermis and result in painful, erythematous papules that may drain serous fluid. These nodules are surmounted by a punctum through which the larvae breathe.

Furuncular myiasis in Africa is caused by *Cordylobia anthropophaga* (also known as the tumbu fly, putsi fly or mango fly). The female fly is attracted to the smell of urine or faeces, and often lays her eggs on soiled babies' nappies or clothes that have not been washed and ironed thoroughly. The larvae emerge from the eggs within 3 days, stimulated to hatch by the heat of the body, and penetrate the skin painlessly. An enlarging nodule develops over the next week until it resembles a boil or spider bite. On close inspection a small punctum can be seen, with a very small dark dot inside, the posterior spiracles or breathing apparatus of the larvae. The larva feeds on the tissues, and moults three times before it leaves the boil, to pupate on the ground. The larvae are variable in size and appear as small, elongated, soft, segmented worms.²

Cordylobia spp. is usually found in tropical parts of Africa, including the Lowveld areas of Limpopo Province, Mpumalanga and KwaZulu-Natal.

Case reports

A 10-month-old boy and his father presented with pustules initially diagnosed as impetigo. Larvae emerged from the nodules of the boy and the father. The family lived in Centurion

and the father was an office worker. They were from a high-income group living on a golf estate and had not visited low-lying or rural areas.

Another baby presented with several boil-like sores on the arms and body (Fig. 1). Myiasis was diagnosed clinically and the mother was told to catch the larvae as they emerged from the lesions. Within 24 hours all the boils had erupted and 10 larvae were collected. The family lived in farm accommodation on the Irene Estate and Dairy and had not travelled.

A construction worker in the area had a single wound on his buttock that resembled a deep abscess with a punctum. The practice sister drained it and the larva was exposed (Fig. 2).

A young girl attending a private school in Irene Village and with no travel history presented with a single wound on the skin of the buttock. This infestation caused an extended abscess on the buttock that needed incision and drainage.

An adult woman presented with a history of a 'worm' emerging from a boil on the buttocks.

These larvae were subsequently identified as *Cordylobia* spp.

Discussion

There has been a dramatic increase in the incidence of myiasis this year in Gauteng and North West province, probably because of the high rainfall and temperatures in the region, resulting in optimal weather conditions to support the life cycle of the *Cordylobia* fly.^{3,4}

Preventive measures

Drying clothes on a line provides a target for the adult female flies to lay their eggs. Ironing clothes after they have been taken off the line kills any deposited eggs. In poor rural areas where



Fig. 1. Arm of a child showing boil-like lesions of cutaneous myiasis.

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Fig. 2. *Cordylobia* larvae after extraction from a lesion. Note the difference in size of the larvae.

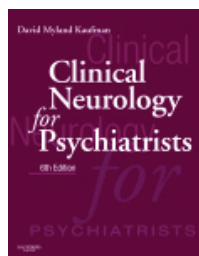
there is no electricity, clothes (especially underwear) should be hung up to dry indoors. In more affluent areas tumble driers may be used instead of clothes lines.

Treatment

Furuncular myiasis is treated by covering the lesion with petroleum jelly or liquid paraffin for a short period. This encourages the larva to emerge from the skin to avoid suffocation, and lubricates the larva and its pocket for easy expression by gentle squeezing of the lesion. The larva may also be gently extracted with sterile forceps when it starts to emerge from the punctum after Vaseline has been applied. However, the utmost care must be taken to ensure that the larva is not punctured in any way, as this will cause secondary infection and severe inflammation of the lesion.

1. Vega-Lopez F, Chopra S. *Manson's Tropical Diseases*. 21st ed. London: Saunders, 2003: 374-375.
2. Zumpt F. *Myiasis in Man and Animals in the Old World*. London: Butterworths 1965: 70-77.
3. ProMED-mail. Itching Cutaneous Eruption – South Africa. <http://www.promedmail.org> (archive number 20060205.0376, accessed 8 January 2007).
4. *National Institute of Communicable Diseases Communiqué* 2006; 5 (2)

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