Netherlands
The Journal of Medicine

PHOTO QUIZ

A patient with prickling boils

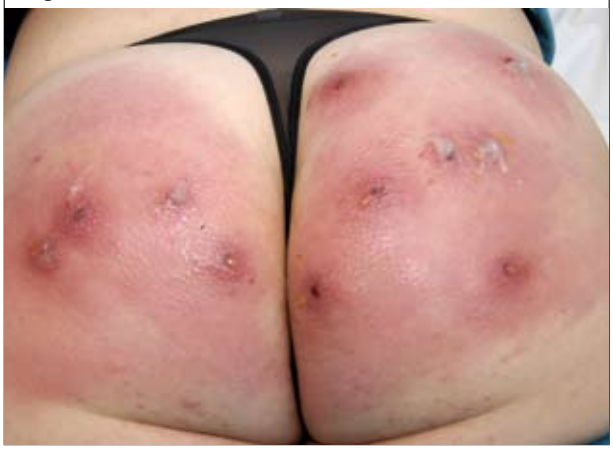
R.A. Douma[1*], M. ten Wolde[1], P.P.A.M. van Thiel[2], M. van Vugt[2]

Departments of [1]Internal Medicine and [2]Infectious Diseases, Tropical Medicine and AIDS, Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands, [*]corresponding author: tel.: +31 (0)20-566 82 74, fax: +31 (0)20-696 88 33, e-mail: r.a.douma@amc.uva.nl

CASE REPORT

A 35-year-old woman presented with itchy, painful and 'prickling' boils on her buttocks eight days after a one-week stay in rural Tanzania, where she had worked in a voluntary project building a school. The red nodules had developed over a couple of days, starting two days after her return. Her general practitioner had started oral doxycycline treatment four days earlier without any result. She had no fever or other symptoms. Each boil had a reddish-brown crust with an extensive surrounding inflammatory reaction (*figure 1*). She had no previous medical history and was not on any medication.

Figure 1. *Buttocks with boils*



WHAT IS YOUR DIAGNOSIS?

See page 38 for the answer to this photo quiz.

DIAGNOSIS

After the removal of one of the crusts, a black central punctum was visible, with a moving larva in the central opening. Suspecting cutaneous myiasis, we removed all the crusts and applied Vaseline to each punctum to asphyxiate the larvae and lure them out of the nodules. We managed to extract all larvae (*figure 2*). They were identified as the larvae of *Cordylobia anthropophaga* or Tumbu-fly, endemic in sub-Saharan Africa. The female Tumbu-fly deposits her eggs (100 to 300 per lay) in soil polluted with animal excrement or on wet clothing hanging out to dry in the sun. After hatching, the larvae can stay alive for 7 to 20 days. They can easily penetrate the skin, where they develop into mature larvae in the dermis.[1,2]

The major differential diagnosis is furunculosis. Patients may complain of non-healing boils of the skin, with symptoms of pruritus, a sensation of movement under the skin and/or pain. A history of recent travel to an endemic area may also point into the direction of myiasis. The extraction and subsequent identification of the larvae confirms the diagnosis.

Because the larvae need air to develop, asphyxiation is an effective part of the treatment. Vaseline, but also several substances such as adhesive tape, butter, make-up creams and bacon have been successfully used for this purpose. Alternatively, lidocaine can be injected under the nodule (to paralyse the larva, while the pressure of the injection pushes the larva out) or the larvae can be surgically evacuated. Caution should be taken to extract the larva in its entirety, since remnants may prompt an inflammatory response.[2,3] Travellers to endemic countries are advised to iron all clothes that have been dried outside.

How our patient was infected remains unclear. She denied wearing un-ironed clothes. When sitting outside, she always wore light cotton pants and could not remember sitting on wet or possibly contaminated soil. To prevent secondary infection, our patient was additionally treated with oral amoxicillin-clavulanic acid and povidon-iodine ointment. Her symptoms quickly improved and the nodules resolved completely.

With the increase in travel to the tropics, cutaneous myiasis can be expected more frequently in returning travellers. Familiarity with the clinical presentation and treatment by physicians in non-tropical countries will avoid delayed diagnosis and unnecessary use of antibiotics.

Figure 2. *Larvae of Cordylobia anthropophaga, or Tumbu-fly*

ACKNOWLEDGMENTS

We thank Leny Nieuwendijk-de Bruin from the Section of Parasitology for determining the larval species and Winfried Barendregt, photographer, for taking the pictures.

REFERENCES

1. Adisa CA, Mbanaso A. 'Furuncular myiasis of the breast caused by the larvae of the Tumbu fly (Cordylobia anthropophaga)'. BMC Surg. 2004;4:5.
2. Siraj DS, Luczkovich J. Nodular skin lesion in a returning traveler. J Travel Med. 2005;12:229-31.
3. Nunn P. Tangling with tumbu larvae. Lancet. 1994:12;343:676.