

Lund's Fly Myiasis

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A traveler presented with a furuncular skin abscess and periorbital edema. A larva was surgically removed from the abscess and identified as a larva of *Cordylobia rodhaini*. Myiasis caused by *C. rodhaini* is called Lund's fly myiasis and only rarely is reported in humans. After disinfection, the remaining lesion healed without further intervention and the edema resolved.

Keywords: *Cordylobia rodhaini*; furuncular; Myiasis; Lund's fly.

A 51-year-old woman returned to Belgium from Ghana with a left-sided frontoparietal skin abscess that had developed in 2 weeks' time and ipsilateral periorbital edema. She did not have a fever. The day before she came to our travel clinic, she had started antibiotic treatment (amoxicillin-clavulanic acid, 875/125 mg 3 times daily). Upon examination, a fluctuating red boil was noticed just below the hairline. It measured 2.5 cm in diameter. Palpation was painful and serous fluid leaked from a smooth-edged central opening upon pressure. The leukocyte count was 9,730 cells per microliter (normal range 3,500 to 9,000) with normal differentiation. After surgically extending the central opening by 3 millimeters, a larva measuring 10 mm in length was expelled (Figure 1). The remaining lesion was disinfected and healed uneventfully. Based on weak pigmentation of randomly distributed cuticular spines and presence of 3 strongly tortuous spiracular slits on each posterior peritreme (Figure 2), the larva was identified as a third-instar larva of *Cordylobia rodhaini* (Lund's fly), order Diptera, family Calliphoridae [1].

Most reports of African cutaneous myiasis are routinely attributed to *C. anthropophaga* (Tumbu fly), nevertheless *C. ruandae* and *C. rodhaini* should be considered as well. Tortuous morphology of the posterior spiracular slits readily identifies *C. rodhaini*. Adult females of *C. rodhaini* deposit their eggs in dry soil or on clothing. Contact with the mammalian host's skin activates the larva, which will then hatch and



Figure 1. Third-instar larva of *Cordylobia rodhaini*. Typical are the strongly developed and randomly distributed cuticular spines, which have weak pigmentation. The larva's length is 10 mm. Mature third-instar larvae of *C. rodhaini* can reach up to 23 mm.

penetrate the victim's skin. Common hosts are rodents and small antelopes, and humans are infested only rarely. After a maturation period of 12 to 15 days, the larva leaves the host, falls to the ground, and pupates until finally an adult fly will emerge [1]. From the different types of myiasis, furuncular myiasis is often caused by *C. anthropophaga* in sub-Saharan Africa, *Dermatobia hominis* in tropical regions of Central and South America, and *Cuterebra* spp. and *Wohlfahrtia vigil* in North America [2]. *C. rodhaini* is geographically restricted to Sub-Saharan Africa

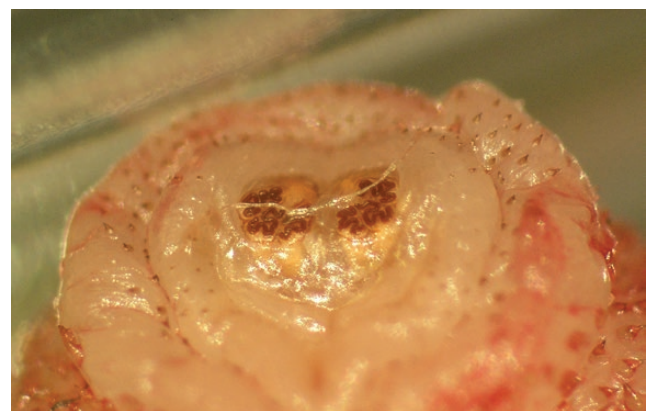


Figure 2. Detail of the strongly tortuous posterior spiracular slits of the third-instar larva of *Cordylobia rodhaini*, the most prominent feature to differentiate this larval species from *C. anthropophaga* and *C. ruandae*. Another distinct characteristic of *C. rodhaini* is a dark bar of spiny processes between the mouth hooks (not shown) [1].

Received 16 February 2019; editorial decision 24 April 2019; accepted 25 April 2019

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and is mainly found in rainforest area [1]. Like myiasis caused by *C. anthropophaga*, infestation is frequently associated with abscess formation. Therapy consists of removal of the larva and disinfection of the wound. Extraction methods traditionally involve either surgical excision or forcing the larva to emerge by sealing off its respiratory organs through application of adhesive tape, petroleum jelly, or paraffin [3]. Care should be taken when extracting the larva, as partial extraction can result in severe inflammatory reactions.

Although Lund's fly myiasis in humans is rarely reported – to our knowledge only 28 cases have been recorded in literature [3–6] – travelers to Sub-Saharan Africa should be aware of possible fomite-mediated transmission of myiasis. Location of myiasis on the forehead with secondary periorbital swelling is exceptional, but it also is described in a similar report of Lund's Fly myiasis [4]. This case highlights the diversity of the *Cordylobia* species as a possible cause of cutaneous myiasis in travelers returning from Africa. When in doubt, expelled larvae should be sent to a reference laboratory to ensure correct species identification.

Acknowledgments

We would like to thank Hilde Cox for her assistance with the identification of the larva.

Financial support. The authors state that they have not received any funding.

Potential conflict of interest. Both authors: No reported conflicts of interest. Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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