Cutaneous myiasis due to *Dermatobia hominis* in Saudis

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**ABSTRACT**

Cutaneous myiasis infestations are normally found in South and Central America but increasing travel has resulted in their spread to non-indigenous countries with increasing frequency. We report two cases of cutaneous infestation by *Dermatobia hominis* in Taif, Saudi Arabia. There was no history of travel outside Saudi Arabia. The source of infection appears to be domestic cattle indicating that these infestations may be endemic in this region.

**Keywords:** Cutaneous myiasis, *dermatobia hominis.*

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**Case Report.**

**Patient 1.** A 38 year old Saudi male who lived in Leia, a village south of Taif. He had no history of travel but was known to own sheep. He suffered from a painful and discharging furuncular skin lesion on the right upper arm for several days. He had...
noticed a pruritic red papule but did not pay any attention to it. When it became larger, about 8-10mm in diameter, with erythematous induration and draining bloody and serous exudate, he sought medical attention. A “living worm” that had emerged from the skin lesion was also brought in by the patient. The “living worm” brought by the patient turned out to be a larva, measuring 18-20mm long and 4-5mm width showing characteristic features of Dermatobia.

Identification of the larva at King Faisal Specialist Hospital and Research Centre (KFSH & RC) laboratories confirmed it to be a *D. hominis* larvae (Figure 1). Further exploration of the wound under local anesthesia revealed no more larvae. The wound was cleaned and dressed. Broad spectrum antibiotic (augmentin) was given and one week later, the patient was symptom free. The patient reported seeing similar lesions on the cattle he tended. Examination of ulcerations and debridement from these cattle showed the presence of *D. hominis*.

**Patient 2.** A 29 year old Saudi female living in Taif developed a skin lesion on the left hand. The patient complained of a sensation and throbbing out of the lesion. After several days, she felt severe pain. It started as a pruritic red papule which developed into a tender lesion of 12-14mm diameter with a volcano-like appearance and erythematous induration. The lesion irregularly produced small amounts of bloody and serous exudate. The lesion spontaneously ulcerated and a larva dropped out, which was brought to King Faisal Hospital in Taif and was sent to KFSH & RC for identification. The patient was prescribed 250mg of tetracycline four times a day to prevent any secondary infection and a dressing applied to the wound. The larva was identified as *D. hominis* at KFSH & RC laboratories (Figure 2). The family owned sheep and goats and the patient had a history of handling these animals.

There was no history of travel.

**Discussion.** With increasing international travel, cutaneous myiasis may be encountered more frequently in countries in which the parasites are not indigenous. Travelling to subtropical areas accounts for a higher risk. In the Middle and South America, myiasis is mainly caused by the botfly (*D. hominis*). Blood sucking arthropods, usually mosquitoes, transmit the larvae via phoresis, a unique mechanism of egg deposition.9

*D. hominis* infestations can also occur in cattle. In Latin America, control strategies have included treating with subcutaneous injections of doramectin, which has proved effective.10 In the two cases reported in this paper, there was no history of travel and the source of infection appears to be domestic cattle. The fact that most of these animals are bred locally may indicate that these infestations may be endemic in this region but have not been diagnosed or reported. Omar and Abdalla11 reported 7 cases of cutaneous myiasis due to the tumbu fly (*Cordylobia anthropophaga*) in the Asir region. Sundharam et al12 later documented a further 31 cases of myiasis also caused by *C. anthropophaga* in the Asir region. These flies have flourished due to the damp climate in Asir and the fact that the fly can lay its eggs in soil and parasitize many animals would indicate that these types of infestations may become more apparent in future. Management is relatively simple and involves removal of the maggot by excision or squeezing the wound or by gentle use of forceps. To date these cases have not proved serious although complications such as brain and urinary involvement may occur. The present numbers of myiasis cases do not warrant alarm as a serious health problem but this trend should be closely monitored because *D. hominis* and *C. anthropophaga* appear to have an endemic origin in various parts of Saudi Arabia.

![Figure 1 - Characteristic pruritic cutaneous lesion with central punctum and outer volcano like region.](image1)

![Figure 2 - *D. hominis* larva extracted from lesion (magnification x 10).](image2)
References