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Short Communication

FIRST ISOLATION OF *Ignatzschineria indica* IN A CASE OF DROMEDARY CAMEL DERMAL MYIASIS

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A 15-year-old female lactating dromedary was referred for necropsy to the Central Veterinary Research Laboratory, Dubai, United Arab Emirates because of "foot-cancer". Post-mortem examination revealed a large necrotic mass with loss of the lateral toe on the right hind limb (Fig 1). Numerous maggots were observed at the necrotic mass (Fig 1). A preliminary diagnosis of dermal myiasis was made and first and second diptera instar of the flesh fly *Wohlfahrtia nuba* was identified. Culture of the necrotic tissue on horse blood agar under aerobic condition was positive for a Gram-negative bacillus (strain MB3969). Fungal culture was negative.

MB3969 was a Gram-negative, non-motile bacillus. It grew on horse blood agar as non-haemolytic, grey, 1-mm colonies after 24 h of incubation at 37°C in ambient air. It was positive for catalase and oxidase. API 20E (bioMérieux, France) identified it as *Bordetella/Alcaligenes/Moraxella* species (98.7% confidence, profile: 022100401). The isolate was susceptible to ampicillin, gentamicin and levofloxacin, but resistant to cotrimoxazole, tetracycline, vancomycin and azithromycin. 16S rRNA gene sequencing, performed using our published protocol and primers LPW57/LPW58 (Woo *et al,* 2001), showed that the 16S rRNA gene sequence of MB3969 (DDBJ/ENA/GenBank accession number: LC010924) possessed 99.5% identity to that of *I. indica* FFA1^T when analysed by BLASTN.

Fig 1. Massive necrosis with loss of lateral toe at the right hind foot of a dromedary containing numerous maggots of *Wohlfahrtia nuba*.

We report the first isolation of *I. indica* from a case of animal myiasis. Before 2011, the genus *Ignatzschineria* contained only one recognised species, *I. larvae*, which was isolated from the flesh fly *Wohlfahrtia magnifica* (Tóth *et al,* 2001; 2007). In 2011, two additional species, *I. indica* and *I. ureclastica*, both isolated from the gastrointestinal tract of adult flesh flies (*Sarcophaga* spp.), were described (Gupta *et al,* 2011). After the description of *I. indica* as a novel species, Barker firstly reported three cases of *I. indica* infections associated with human myiasis, one of which was related to the blow fly *Lucilia sericata* (Barker *et al,* 2014). The bacterium was isolated from the blood and urine of the patients. In addition, *Wohlfahrtiimonas chitiniclastica*, phylogenetically closely related to *Ignatzschineria* and isolated from flesh flies (*Wohlfahrtia magnifica*) (Tóth *et al,* 2008), was also reported to cause myiasis-associated bacteraemia (Rebaudet *et al,* 2009). In this report, we describe the first isolation of *I. indica* from the necrotic wound tissue of a dromedary with dermal myiasis caused by maggots of a facultative parasitic flesh fly *Wohlfahrtia nuba*. *I. indica* should be suspected if a non-motile, catalase- and oxidase-positive Gram-negative bacillus, difficult-to-identify by biochemical tests, is isolated from any clinical specimen from patients/animals with myiasis.

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