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Changing patterns of zoophilic fungal infections in the West of Scotland illustrated by two cases of tinea corporis from domestic rodents

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Dermatophyte infections can be caused by geophilic, anthropophilic and zoophilic species. A geographical variation in the prevalence of zoophilic species exists, partly due to urbanization and differences in animal handling.¹ We report two cases of tinea incognito caused by the zoophilic species *Trichophyton mentagrophytes* var. *mentagrophytes* acquired from pet rats.

Patient 1 was an 11-year-old boy who presented to the dermatology department with a 4-week history of pruritic annular erythematous areas on the neck and chest wall (Fig. 1). Initially he was treated by his general practitioner with topical steroids and oral antibiotics for presumed infected eczema but his symptoms persisted. Tinea incognito was suspected clinically and scrapings grew *T. mentagrophytes* var. *mentagrophytes*. The patient had acquired a pet rat 3 weeks before the appearance of the eruption. The rat had been crawling on his chest and around the neck.

Owing to the extent of the disease and accompanying mild systemic symptoms, the patient was treated with a 4-week course of oral terbinafine 125 mg daily, although unlicensed for patients of his age. Complete clearance was achieved and the rat was treated by a veterinary surgeon.

Patient 2 was a 39-year-old woman who was treated by her general practitioner for suspected eczema affecting both forearms (Fig. 2). Treatment with potent topical steroids had altered the morphology of the eruption by the time she was seen by the dermatologist. She was diagnosed with tinea incognito and scrapings grew *T. mentagrophytes* var. *mentagrophytes*. The patient kept a pet chinchilla, which



Figure 1 Patient 1. Pruritic annular erythematous areas on the neck and chest wall.



Figure 2 Patient 2. Suspected eczema affecting both forearms.

had been crawling on her forearms, and samples from the animals grew the zoophilic species on culture. Treatment with a 4-week course of oral terbinafine 250 mg daily cleared the lesions.

Both patients were from an area in the west of Scotland. A review of zoophilic dermatophytes in the west of Scotland during the period 1996–2006 carried out by the Mycology

Reference Laboratory in Glasgow showed the most prevalent species to be *Microsporum canis*, with the second most prevalent being *T. mentagrophytes* var. *mentagrophytes*. When a comparison was made with previously published data on the prevalence of zoophilic dermatophytes in the west of Scotland, a decline was found in the prevalence of the cattle species *Trichophyton verrucosum*, which used to be the most common zoophilic species during the period 1960–1975.² This decline is thought to be largely attributed to the diminution of the farming industry and changes in cattle-handling practices. Similar changes in epidemiology, with *T. verrucosum* being superseded by *M. canis*, have been found in other European countries.³ The rise in *M. canis* is thought to partly reflect the increase in the ownership of cats and dogs as pets, which are the main animal habitat for this species, and partly due to the prevalence of stray cats in some countries.⁴ Borman *et al.*⁵ showed that the prevalence of *M. canis* as the commonest zoophilic species is similar throughout the UK. The increase in the zoophilic species *T. mentagrophytes* var. *mentagrophytes* is thought to be due to the increase acquisition of rodents and exotic animals as pets in the UK.

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