

COMPARISON OF PATIENT AND CLINICAL DIFFERENCES BETWEEN SUPERFICIAL SKIN INFECTIONS DUE TO *MICROSPORUM CANIS* AND *TRICHOPHYTON RUBRUM*

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Abstract. Dermatophytosis is a common skin problem worldwide and may be caused by *Trichophyton rubrum* or *Microsporum canis*, which is zoophilic and requires treatment of the pet to reduce the risk of reinfection. Most dermatophytosis are diagnosed without culture so no identification of the causative organism is made. In this study, we aim to determine patient and clinical differences between infection due to *T. rubrum* and *M. canis* in order to inform appropriate management and prevention strategies. This study was performed at the Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand. Data of patients who were diagnosed as superficial cutaneous dermatophytosis from *T. rubrum* or *M. canis* between 2014 to 2016 were retrospectively reviewed. Of 566 patients, *T. rubrum* was isolated in 518 (91.5%), while *M. canis* was detected in 48 (8.5%). *M. canis* infections were significantly ($p < 0.001$) more common among female (93.8%) than males (6.2%) but *T. rubrum* infections did not vary significantly between females (42.5%) and males (57.5%). Median age of *T. rubrum* and *M. canis* infections was 57 and 39.5 years old, respectively ($p = 0.005$). Patients with *T. rubrum* significantly had tinea cruris ($p < 0.001$), tinea pedis ($p = 0.004$), and tinea unguium of toenail ($p < 0.001$), compared to those with *M. canis* infection. *M. canis* was frequently detected as tinea corporis on the exposure areas of the body above umbilicus (40.4%, $p < 0.001$) and significantly more likely ($p < 0.001$) to involve only one area of the body. In summary, patients with *M. canis* infection were significantly more likely to be female predomination, aged 30-39 years, have tinea corporis in exposed skin above the umbilicus and involve only a single area on the body. Dermatophytosis patients with those characteristics should be consider treating their pets in addition to themselves to reduce their risk of becoming reinfection.

Keywords: *Microsporum canis*, *Trichophyton rubrum*, dermatophytosis, tinea

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