



Cutaneous sporotrichosis in a stray cat from Thailand

Lerpen Duangkaew^a, Chompoonek Yurayart^b, Orawan Limsivilai^b, Charles Chen^c,
Chaiyan Kasomdorkbua^{d,*}

^a Dermatology Unit, Veterinary Teaching Hospital, Faculty of Veterinary Medicine, Kasetsart University, 50 Paholyothin Road, Ladyao, Chanuchak, Bangkok 10900, Thailand

^b Department of Microbiology and Immunology, Faculty of Veterinary Medicine, Kasetsart University, 50 Paholyothin Road, Ladyao, Chanuchak, Bangkok 10900, Thailand

^c Asian Veterinary Specialist Referral Center, Taipei, Taiwan

^d Department of Pathology, Faculty of Veterinary Medicine, Kasetsart University, 50 Paholyothin Road, Ladyao, Chanuchak, Bangkok 10900, Thailand



ARTICLE INFO

Keywords:

Sporotrichosis
Cat
Stray
Bangkok
Thailand

ABSTRACT

This is a case report of feline sporotrichosis in a 3-year-old male intact DSH stray cat in Bangkok, Thailand. Cytology and histopathology revealed *Sporothrix* yeast-like organisms in ulcerative cutaneous lesions. Fungal culture and sequence analysis of ITS region of rDNA confirmed the diagnosis and the causative agent as *Sporothrix schenckii*. This is the first case report of feline sporotrichosis in the country. The case report emphasizes the role of stray cats as this zoonotic disease carrier.

1. Introduction

Sporotrichosis is a subcutaneous and systemic mycotic infection in human, and many animal species including dogs, cats, horses, donkeys, caused by thermal dimorphic fungus, *Sporothrix schenckii* [1,2]. *S. schenckii* is classified under the division Ascomycota, class Pyrenomycetes, order Ophiostomatales and family Ophiostomataceae, with no known sexual form [2]. Epidemiological studies revealed high genetic variability within the species complex including six distinctive species that exhibited either globally or geographically distribution [3].

In the environment, *S. schenckii* exists in a mycelial form growing on living and decaying plant material. After inoculation into animal body, the fungus converts itself to a yeast form characterized by round, oval, or cigar shaped, 3–5 µm wide, and 5–9 µm long [4]. In human, sporotrichosis usually caused by transcutaneous traumatic implantation of fungal conidia contaminated thorns, splinters, straw or wood shavings [5]. Classical lesions develop as primary skin papules, nodules or abscesses and infection spreads along the regional lymphatic chain as observing multifocal to generalized skin lesions along with associated lymphadenopathy [3]. In dogs and cats, there are three recognized lesions: the localized or fixed cutaneous form, the cutaneous-lymphatic form and the disseminated or systemic form. Lesions in the nasal cavity and upper respiratory tract are usually observed in most severe cases. In both humans and animals, multifocal or systemic/disseminated sporotrichosis is rare and associated with host immunodeficiency status [5].

Treatments of sporotrichosis in cats are iodides, itraconazole,

ketoconazole, fluconazole local thermotherapy, amphotericin B and terbinafine. Treatment should be continued for at least 1 month after apparent clinical cure to prevent recurrent of clinical sign. Use of glucocorticoids or any immunosuppressive drug is contraindicated both during and after the treatment of the disease, because the disease can worsen or recur. Any concurrent bacterial infection should be simultaneously treated for 4–8 weeks with an appropriate antibacterial to help in the healing of the lesion [1,2,4].

The zoonotic potential of sporotrichosis, especially from cats to humans, are concerned for serious outbreaks in various countries [3]. Transmission of sporotrichosis from animal-to-animal or animal-to-human can occurred via bites, scratches or directly contact of injured skin with an ulcerated wound or exudate from an infected cat [4].

In Thailand, human sporotrichosis was firstly reported in 1999 [6]. Until now, the incidence has been suggested to be very low comparing to other Asian countries [3]. Animal sporotrichosis in Thailand has never been documented before as well. Zoonotic sporotrichosis outbreak in humans and cats in Malaysia, the country with geographically connected with Thailand, has shown the best example of emerging zoonosis that we should aware. Herein, we report the first confirmed case of feline sporotrichosis in a stray cat in Bangkok, Thailand.

2. Case

A 3-year-old male intact DSH was found as a stray cat on December 2nd, 2017. Its body condition was emaciation. The cat had multifocal

Chaiyan Kasomdorkbua

* Corresponding author.

E-mail address: fvetchk@ku.ac.th (C. Kasomdorkbua).

<https://doi.org/10.1016/j.mmcrr.2018.12.003>

Received 28 September 2018; Received in revised form 3 December 2018; Accepted 20 December 2018

Available online 21 December 2018

2211-7539/ © 2018 The Authors. Published by Elsevier B.V. on behalf of International Society for Human and Animal Mycology. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).