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Zoonotic Sporotrichosis: Clinical Aspects of Feline and Canine Cases.

Regina Falcao*

Instituto de Dermatologia Professor Rubem David Azulay, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

***Correspondence to**: Regina Falcao, Instituto de Dermatologia Professor Rubem David Azulay, Pontifícia Universidade Católica do Rio de Janeiro, Brazil. E-mail: regina.fal@gmail.com

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Introduction

Sporotrichosis is a chronic fungal infection caused by thermodimorphic fungi of the genus *Sporothrix*, primarily *S. schenckii*, *S. brasiliensis*, *S. globosa*, and *S. luriei*. While traditionally considered an environmental disease acquired through traumatic inoculation of contaminated plant material, sporotrichosis has increasingly emerged as a zoonotic threat, particularly in Latin America [1, 2].

Sporothrix species exist in a mycelial form in the environment and convert to a yeast form in host tissues. Transmission typically occurs via scratches, bites, or contact with exudates from infected animals. Cats and, to a lesser extent, dogs have become recognized reservoirs and transmitters of the disease, with feline cases showing high infectivity and public health implications [3].

Cats are especially efficient vectors due to the high fungal load in their lesions, claws, and nasal secretions. Unlike environmental transmission, zoonotic sporotrichosis from cats can occur without prior trauma, making it a unique and concerning route of infection [4].

Dogs, while less commonly affected, can also develop sporotrichosis and transmit the fungus to humans, though typically through traumatic inoculation. The zoonotic potential of canine cases is lower, but their clinical management remains important in endemic areas [5, 6].

Feline sporotrichosis often presents as ulcerative nodular lesions, primarily on the head, ears, and limbs. The disease may begin as localized cutaneous infection but can progress to lymphocutaneous or disseminated forms, especially in immunocompromised animals. Lesions may discharge serohemorrhagic exudate, and systemic signs such as fever, anorexia, and respiratory symptoms may develop in advanced cases [7, 8].

Cats with outdoor lifestyles, particularly males involved in territorial fights, are at higher risk. In endemic regions like Brazil, *S. brasiliensis* is the predominant species and is associated with more severe clinical manifestations [9].

Canine sporotrichosis is less frequent but clinically significant. Dogs typically present with localized cutaneous lesions, often on the limbs or face. The lymphocutaneous form is also observed, with nodules following lymphatic drainage pathways. Disseminated disease is rare but can occur in immunosuppressed animals or those receiving corticosteroids [10].

Conclusion

Diagnosis in dogs may be delayed due to the nonspecific nature of lesions and the lower index of suspicion compared to cats. However, accurate identification is essential to prevent environmental contamination and potential zoonotic transmission.In cats, swabs from nasal cavities, skin lesions, and claws are commonly used. In dogs, aspirates from abscesses or biopsies are preferred3.The antifungal itraconazole is the first-line treatment for both feline and canine sporotrichosis. Monotherapy with itraconazole has shown high efficacy and low adverse effects.

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Treatment duration varies depending on disease severity but typically ranges from 4 to 12 weeks. In refractory or disseminated cases, potassium iodide or amphotericin B may be considered.A systematic review published in *Medical Mycology* analyzed 152 animal cases (131 cats and 21 dogs), revealing that monotherapy was the most common approach, with favorable outcomes in most cases. Outdoor lifestyle and male sex were associated with higher infection rates in cats.Zoonotic sporotrichosis is a growing concern, particularly in Brazil, where outbreaks have been linked to feline transmission. Caretakers of infected cats are significantly more likely to contract the disease, often through casual contact. Unlike other zoonoses, sporotrichosis does not always require trauma for transmission, making it harder to prevent.

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