

Veterinary Specialists Inc.

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DERMATOPHYTOSIS (Ringworm infection)

Dermatophytosis is a fungal infection of the skin, hair and nails. There are various species of dermatophytes, but only a few species are commonly responsible for infection in our pets. Cats are usually infected with *Microsporum canis*, while dogs may be infected with *Microsporum canis*, *Microsporum gypseum* or *Trichophyton mentagrophytes*.

Dermatophytes are transmitted by contact with infected hairs and scales or fungal elements on animals, in the environment or fomites (i.e. combs, brushes, clippers, bedding, transport cages, etc...). *M. canis* can be cultured from dust, heating vents, and furnace filters. Visitors to catteries and multiple cats household may introduce the organisms. *M. canis* spores can remain viable in the environment for up to **18 months**. Understanding the latter information is important in the emphasis on environmental treatment.

Young animals are predisposed to dermatophyte infections, which is partly due to a delay in development of adequate host immunity. Long haired cats may be more commonly affected due to less efficient grooming or genetic breed predisposition (i.e. Persians and Himalayans). In dogs, dermatophytosis is seen with increased frequency in Yorkshire Terriers and Dalmatians.

Dermatophytosis can present in a variety of ways, which makes it a consideration in almost any skin condition. Several techniques are useful in establishing a diagnosis of dermatophytosis. These include: Wood's light examination, microscopic examination of hairs, biopsy, and fungal culture. **The most reliable method is the fungal culture.**

Topical therapy is usually recommended for all pets diagnosed with dermatophytosis. Systemic (oral) therapy is indicated for most cats and for dogs with generalized disease and severe symptoms, *T. mentagrophytes* infection or immune compromise.

Dermatophytosis in healthy dogs and shorthaired cat can undergo spontaneous resolution within 3 months. Longhaired cats can undergo spontaneous resolution, but it may take 1- 4 years. Some species of dermatophytosis will not spontaneously resolve, and animals with generalized dermatophyte lesions usually will require aggressive therapy.

Treatment for dermatophytosis can become quite extensive and expensive, especially in long haired cats and if there are several other cats in the household. Treatment involves therapy for all the pets infected and treatment of the environment (see additional handout for environment treatment).

Evidence of skin lesions along with fungal cultures are used to assess response to treatment. Therapy is continued until 3 consecutive fungal cultures 2 weeks apart are negative. **Veterinarian consultation is absolutely necessary before discontinuation of therapy.**

If your pet has been diagnosed with dermatophytosis it will be important to identify if other pets in the household are infected. Your veterinarian or Dr Rosales will recommend the best way to test your other pets for dermatophyte infection.

If your other pet(s) is found to be negative, we would recommend that the fungal test be repeated in two weeks in order to confirm the negative status. If your other pet(s) is negative, we would recommend that the pet be isolated from the other infected pets.

Dermatophytosis can be contagious to humans. If owners should note any skin lesions on them, they should contact their physician or human dermatologist.

REMEMBER: Treatment for most dermatophyte cases is a combination of topical and/or systemic therapy on your pet and other infected pets in the household, as well as environmental treatment.