

**Identify and determine the frequency of fungi isolated from the skin and hair of cats in rural area of Meshkin-shahr, Iran with emphasize on transmission risk of fungal zoonoses**

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**Abstract**

**Background & aims:** Dermatophytosis, the zoonotic fungal disease, is a frequent cutaneous infection affecting the keratinized tissues of humans, pets and livestock. Animals can carry dermatophytic elements asymptotically and are considered to play an important role in the epidemiology of the disease. As exposure to any infected lesion free animals, especially cats, may lead to the development of infection in humans.

The purpose of this study was to identify and determine the frequency of fungal agents isolated from skin and hair of cats living in rural areas of Meshkin-shahr, Iran with emphasize on transmission risk of fungal zoonoses.

**Methods:** This cross-sectional descriptive study was performed in Medical Mycology Laboratory, School of Public Health, Tehran University of Medical Sciences from February 2015 to July 2016. A total of 103 asymptomatic cats were studied. Mycological analysis including direct examination and culture on SC, SCC and DTM with the aim of full coverage of whole fungal growth such as saprophytic and pathogenic fungi were conducted. Gender and age were also recorded.

**Results:** None of the 103 cats examined were positive for fungal elements on direct examination. However, 15 (14.5%) cases from 103 cats showed dermatophytic growth, with *T. verrucosum* on culture that being the most common etiologic agents of dermatophytosis. Although the gender of the cats had not significant association with dermatophytosis prevalence, age was a factor significantly influenced the risk of diseases ( $P=0.019$ ). *Aspergillus* spp., *Alternaria* spp., *Rhizopus* spp., *Penicillium* spp. and *Paecilomyces* spp. in descending frequency was the most predominantly identified saprophytic fungi.

**Conclusion:** Our findings clearly highlighted the epidemiological role of asymptomatic cats in spreading dermatophytosis to humans and other animals.

**Key words:** Fungal zoonoses, dermatophytes, cat, Meshkin-shahr, Iran