



Poster

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## Can polymerase chain reaction be an alternative diagnostic method for dermatophytes?

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### Abstract

Dermatophytosis are cutaneous mycoses caused by *Microsporum spp.*, *Trichophyton spp.* and *Epidermophyton spp.* dermatophytes. Dermatophytosis is similar to other skin diseases due to its various clinical manifestations and its diagnosis is based on the use of many different methods. Generally used methods are direct microscopic examination and production of samples in appropriate culture medium, but these methods have some disadvantages. Direct microscopic examination requires expertise, and in some cases, microbiologists encounter specimens that are microscopically negative but positive in culture. On the other hand, the sensitivity of fungal cultures may decrease due to the fact that it takes a long time to give accurate results and the contaminant growth is common. Considering these reasons, new Polymerase Chain Reaction based methods have been developed for the diagnosis of dermatophyte agents. Compared to other molecular methods, the PCR method is simple, rapid and applicable for the identification of dermatophyte species that do not show typical morphological features. Although PCR-based diagnostic methods are widely used in the diagnosis of dermatophytosis in humans, its usefulness in dogs and cats has also been confirmed. As a result, the PCR method is used in the diagnosis of dermatophytosis; it's thought to be a method that can be used in the diagnosis of dermatophytosis due to the ease of obtaining the samples, providing faster results than fungal culture and not requiring expertise.

**Keywords:** dermatophytosis, mycologic culture, PCR, cat, dog

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