Rev Iberoam Micol. 2020;37(1):1–2

Revista Iberoamericana de Micología

www.elsevier.es/reviberoammicol

Mycologic Forum

Dermatophytes: The names they are a-changin'☆

Dermatofitos: los nombres están cambiando

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ARTICLE INFO

Article history:
Received 27 September 2019
Accepted 16 October 2019

Dermatophytes are a group of phylogenetically related fungi that cause dermatophytosis. Until a couple of years ago these fungi were included in the genera *Epidermophyton*, *Microsporum* and *Trichophyton*, which were not monophyletic. For this reason, and coinciding with the abandonment of the dual nomenclature of fungi in 2013 by the International Code of Nomenclature for algae, fungi, and plants, there has been an increase in the number of genera that group these species. According to the new proposal of phylogenetic taxonomy of dermatophytes,[1] some of these species are currently included in the genera *Lophophyton* or *Nannizzia*.

Along with evolution, some of these fungi became adapted to certain animal species. Anthropophilic species, such as *Trichophyton rubrum* or *Epidermophyton floccosum*, are those that only cause dermatophytosis in humans and rarely infect other animals. However, humans may be infected by zoophilic species, such as *Microsporum canis* (Fig. 1) and *Trichophyton verrucosum*, which characteristically cause dermatophytosis in cats and cows, respectively, and are the cause of frequent zoonoses.

Other dermatophyte species that infect animals have had their names changed. *Lophophyton gallinae* (formerly *Microsporum gallinae*) in the case of poultry ringworm, and *Nannizia nana* (formerly *Microsporum nanum*) in the ringworm of pigs, are two examples. The presence of this mycosis is usually very small in the current livestock production systems of these animal species. However, it can increase when farm hygiene is poor. Although the cases are not frequent, they can appear in the form of outbreaks, such as the one that affected not many years ago 100% of lactating sows in an extensive Iberian pig farm.[2]

Fig. 1. Macroconidium of *Microsporum canis*. This species is the main causal agent of ringworm in cats and dogs.

There are also geophilic species such as *Nannizzia gypsea* (formerly *Microsporum gypseum*), whose normal habitat is the soil, that can cause dermatophytoses in both humans and animals. On the other hand, there are other species that share a common morphology and phylogeny with dermatophytes, but that have not been described as etiological agents of dermatophytosis, or their infections are cited as questionable. Two examples are the typically geophilic species *Arthroderma uncinatum* (formerly *Trichophyton ajelloi*) or *Paraphyton cookei* (formerly *Microsporum cookei*) (Fig. 2). Little by little we will have to get used to these changes.

☆ These Mycology Forum articles can be consulted in Spanish on the Animal Mycology section on the website of the Spanish Mycology Associationhttps://aemicol.com/micologia-animal/

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https://doi.org/10.1016/j.riam.2019.10.002

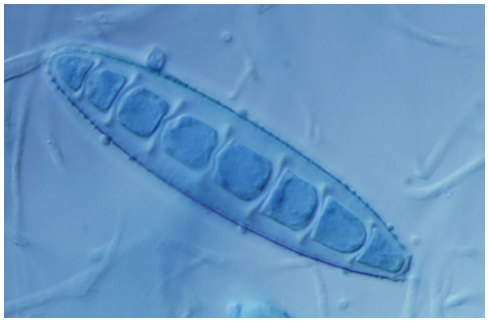

Fig. 2. Macroconidium of *Paraphyton cookei* (formerly *Microsporum cookei*). This species does not produce ringworm, but it can be isolated from the fur of animals.

Conflict of interest

Author has no conflict of interest.

Acknowledgements

Financial support came from Servei Veterinari de Bacteriologia i Micologia of the Universitat Autònoma de Barcelona.

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