Fungal infections in animals: a patchwork of different situations.


Abstract

The importance of fungal infections in both human and animals has increased over the last decades. This article represents an overview of the different categories of fungal infections that can be encountered in animals originating from environmental sources without transmission to humans. In addition, the endemic infections with indirect transmission from the environment, the zoophilic fungal pathogens with near-direct transmission, the zoonotic fungi that can be directly transmitted from animals to humans, mycotoxicoses and antifungal resistance in animals will also be discussed. Opportunistic mycoses are responsible for a wide range of diseases from localized infections to fatal disseminated diseases, such as aspergillosis, mucormycosis, candidiasis, cryptococcosis and infections caused by melanized fungi. The amphibian fungal disease chytridiomycosis and the Bat White-nose syndrome are due to obligatory fungal pathogens. Zoonotic agents are naturally transmitted from vertebrate animals to humans and vice versa. The list of zoonotic fungal agents is limited but some species, like Microsporum canis and Sporothrix brasiliensis from cats, have a strong public health impact. Mycotoxins are defined as the chemicals of fungal origin being toxic for warm-blooded vertebrates. Intoxications by aflatoxins and ochratoxins represent a threat for both human and animal health. Resistance to antifungals can occur in different animal species that receive these drugs, although the true epidemiology of resistance in animals is unknown, and options to treat infections caused by resistant infections are limited.

Beteiligte Abteilungen und Gruppen

Mikrobielle Immunologie

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