Acta Scientific Veterinary Sciences (ISSN: 2582-3183)

Volume 3 Issue 8 August 2021

Editorial

Fungal Infections in Animals and Humans: A Tumultuous Public Health Challenge

Dr Manuel Thomas*

Research Consultant, UniBiosys Biotech Research Labs, Near CUSAT Metro station, Kochi, Kerala, India

***Corresponding Author:** Dr. Manuel Thomas, Research Consultant, UniBiosys Biotech Research Labs, Near CUSAT Metro station, Kochi, Kerala, India.

Received: June 18, 2021

Published: July 01, 2021

The past few decades has witnessed medical, veterinary and ecological excrescence of fungal diseases with a dramatic increase coupled with a myriad of pathognomonic manifestations in both animals and humans. To worsen the situation, climate change induced/related emergence of fungal infections is also evident irrespective of geographical region with new host spectrum/species. The emergence of Chytrid fungus *Batrachochytrium dendrobatidis* among amphibian population is the classic example in this regard which contributes extinctions of several frog species [1]. Coral reef depletion due to *Aspergillus sydowii* [2], mass mortalities of turtle by *Fusarium solani* [3] and white nose syndrome due to *Pseudogymnoascus (Geomyces) destructans* [4] in bats are other major emerging fungal diseases worldwide in animals with crippling impacts. In humans, rise of immunocompromised people opens new avenues for fungal diseases which are further complicated by diabetes and currently the COVID 19 complications. According to the Global Action Fund for Fungal Infections (GAFFI), over 300 million people of all ages suffer from serious fungal diseases every year, resulting in over 13,50,000 deaths globally [5].

The post-COVID 19 fungal infections have wreaked havoc among public health authorities as more and more cases are reporting incessantly from several countries. The cascade of immunological responses during COVID 19 like pulmonary epithelial damage, immunological malignancies, highly permissive inflammatory environment [6,7] all create a conducive environment for fungi to invade and cause infection. The global emergence of antifungal resistance by fungal pathogens has made the treatment more challenging and perplexed. The climate change connections in the emergence of fungal diseases are also well reported which is well connected with global warming. To conclude, fungi, the neglected group of organisms are now parading towards the main stage with ruinous clinical manifestations and incidence rates with unimaginable perturbations in public health arena. Thus, conglomerated efforts and actions are the need of the hour to cop up with the diseases due to fungi in both animals and humans.

Bibliography

1. Kriger K and Hero J. "Chytridiomycosis, Amphibian Extinctions, and Lessons for the Prevention of Future Panzootics". *Eco Health* 6 (2009): 6-10.

2. Ein-Gil N., *et al*. "Presence of *Aspergillus sydowii*, a pathogen of gorgonian sea fans in the marine sponge Spongia obscura". *International Society for Microbial Ecology Journal* 3 (2009): 752-755.

3. Sarmiento RJ., *et al*. "*Fusarium solani* is responsible for mass mortalities in nests of loggerhead sea turtle, *Caretta caretta*, in Boavista, Cape Verde". *FEMS Microbiology Letter*s 312 (2010): 192-200.

4. Gargas A., *et al*. "*Geomyces destructans* sp. nov. associated with bat white-nose syndrome". *Mycotaxon* 108 (2009): 147-154.

5. GAFFI. "Fungal disease frequency" (2021).

6. Lima CMAO. "Information about the new coronavirus disease (COVID-19)". *Radiologia Brasileira* 53.2 (2021): V-VI.

7. Gandhi RT., *et al*. "Mild or moderate Covid-19". *The New England Journal of Medicine* 383.18 (2020): 1757-1766.

Volume 3 Issue 8 August 2021