Detection of thermotolerant fungi in selected air conditioned and non-air conditioned wards in a public tertiary hospital in Metro Manila

Ferissa B Ablola
University of the Philippines Manila, Philippines

Hospital as health care facility has also become a source of infection that provides niche to different microbiological agents including thermotolerant fungi that are able to propagate and withstand human body temperature. The presence of these thermotolerant fungi in the hospital environment can aggravate the condition of immunocompromised patients through the airborne transmission of fungal spores that can cause allergies to systemic infections. This research is a pilot study in the Philippines to detect the presence of these fungi within the vicinity of a medical facility. This study aimed to isolate and quantify thermotolerant fungal species in selected three Air Conditioned Wards (ACWs) (with in-house surgery patients) and three Non-Air Conditioned Wards (NACWs) (surgery wards) at a public tertiary hospital in Metro Manila and to determine the type of ventilation (air conditioned and non-air conditioned) with the most number of isolated fungi. Air sampling was conducted using six-stage Andersen air sampler loaded with malt extract agar plus chloramphenicol. Sampling was done in duplicate for all the eight sites including hospital main lobby and nurse station as control sites. Seven thermotolerant fungi (Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, Curvularia sp., Penicillium sp., Alternaria sp., Rhizopus sp.) were isolated. The most dominant fungus in NACWs was A. niger, while A. fumigatus was the most prevalent in ACWs. Air conditioned wards showed higher number of fungal isolates than NACWs for the Aspergillus species. These Aspergillus species in both NACWs and ACWs also revealed higher CFUs than the control sites. Physical and environmental factors observed, showed relevance to the observed number of fungal isolates.

Biography
Ferissa B Ablola is currently pursuing her Master of Science in Public Health, Medical Microbiology from the College of Public Health, University of the Philippines Manila. She is also a Registered Microbiologist, serves as a part-time Lecturer in the Medical Microbiology Department of the same university. She also serves as a Research Assistant in the study entitled “Developing strategies to promote engagement in HIV care”, a collaborative project between UPM and Brown University, Rhode Island.

peyablola@yahoo.com

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