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Bacteria and fungi species associated with digestive system of *Blattella germanica* L. collected in spring and autumn from various parts of a public hospital in Mashhad, Iran.

Gholamhossein Moravvej¹, Mahboobeh Naderi Nasab², Sahar Chitsazi³, Zahra Moravvej⁴

¹Ferdowsi University of Mashhad, Iran, ²Mashhad University of Medical Sciences, Iran, ³Ferdowsi University of Mashhad, Iran, ⁴Mashhad University of Medical Sciences, Iran

With regards to the role of cockroaches in transporting and distributing of various disease agents in remedial and hospital environments, the present study aimed to study the bacteria and fungi flora associated with the digestive system of *Blattella germanica* L. collected in spring and autumn (2010-2011) from different sections of a general hospital in Mashhad. Ten cockroaches were captured from each of 5 locations. After dissection of digestive system under sterile conditions, the extracts were incubated in EMB and Blood Agar medium. Bacteria and fungi were identified by clinic of microbiology of Imam Reza hospital of Mashhad. In autumn, the most prevalent bacterium was *Enterococcus* spp. (78%). Other bacteria consisted of Coagulase Negative Staphylococci, *Staphylococcus aureus*, *Streptococcus* spp., *Escherichia coli*, *Klebsiella* spp., *Pseudomonas aeruginosa* and Gram positive bacilli. In this season, 8 (out of 50) cockroaches were contaminated with fungi (16%), namely *Penicillium* spp. (50%), *Mucor* spp. (37.5%) and *Aspergillus* spp. (12.5%). In spring, the most prevalent species was *Enterococcus* spp. (48%). Other bacteria in this season consisted of Coagulase Negative Staphylococci, *S. aureus*, *E. coli*, *Klebsiella* spp., *Tetragen* spp., *Citrobacter frondi*, *Serratia marseus* and Gram positive bacilli. In this season, 6 cockroaches were contaminated with fungi (14%), namely *Penicillium* spp. (14%), *Mucor* spp. (57%), *Aspergillus* spp. (14%) and *Candida albicans* (14%). The results suggested that for reducing the risk of transmission of various disease agents, suitable control measures should be applied to manage the population of cockroaches in hospitals.

Keywords: Spring, Autumn, Bacteria, Fungi, German cockroach, Hospital, Mashhad

All abstracts are subject to approval once submitted with the attendance certification issued by ICE2012