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The bacterial and fungal florai associated with digestive system of *Blattella germanica* L. collected in spring and autumn from dormitories and dwellings in Mashhad, Iran

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The present study aimed to study the bacterial and fungal flora associated with the digestive system of *Blattella germanica* L. collected in spring and autumn from dwellings and dormitories in Mashhad, Iran. After dissection of digestive system under sterile condition, the extracts were incubated in EMB and Blood Agar medium. The result showed that in autumn, the most prevalent bacteria in dwellings and dormitories were *Klebsiella oxytoca* (80%) and *Enterobacter aerogenes* (96%), respectively. The flora of bacteria associated with dwellings consisted of *Enterococcus* spp., *Staphylococcus* spp., *Klebsiella* spp., *Enterobacter aerogenes* and *Micrococcus* spp. All these species except the latter were found in dormitories. Moreover, two species including *Proteus vulgaris* and *P. mirabilis* were found in dormitories. The results indicated that 11 out of 50 cockroaches (22%) from houses and 12 (24%) from dormitories were contaminated with fungi. In spring, the most prevalent bacterium in dwellings and dormitories was *Enterococcus* spp. with the frequencies of 43% and 68%, respectively. The flora of bacteria associated with dwellings consisted of *Enterococcus* spp., *Staphylococcus* spp., *Klebsiella* spp., *Enterobacter aerogenes*, *Serratia marseusens*, *Proteus* spp., *Escherichia coli* and *Tetragen* spp. All these species except the latter were found in dormitories. The results indicated that 10 out of 50 cockroaches (20%) from houses and 1 cockroach (2%) from dormitories were contaminated with fungi. 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.

Keywords: Spring, autumn, bacteria, fungi, German cockroach, dormitories, dwellings, Mashhad

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