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Document Title : *Studies on Pathogenic Enterobacteria carried by Musca Domestic in the Western Region, Saudi Arabia*
دراسات على البكتيريا المعوية الممرضة المحمولة على الذبابة المنزلية (ماسكاد وميسيتيكا بالمنطقة الغربية - المملكة العربية السعودية

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Abstract : The incidence and carriage rate of medically significant enterobacteria carried by the house fly (*Musca domestica*) were investigated. An efficient method was developed for enumerating these organisms that was found to be reproducible and gave representative high yield of microorganisms compared to the results obtained by others using different methods. This method involved washing off the flies with a surfactant substance (Tween 80), after which mechanical agitation of the suspension was performed for one minute in a Rotamixer. A known volume was then taken from the original suspension and streaked on suitable media, namely; nutrient agar, Cystin-Lactose-Electrolyte-Deficient medium, and Salmonella Shigella agar. The plates were incubated aerobically at 37°C for 24-48 hours. For washing off the bacteria from house flies, three solutions were tested. 0.5% Tween 80 pH. 7.9, quarter strength Ringers solution pH .7 and saline 0.5% Tween 80 was chosen for subsequent use since it gave higher yield of microorganisms than other solutions qualitatively and quantitatively. A total of 148 house flies were collected from three cities of the Western Region of Saudi Arabia (Jeddah, Makkah, TaiO. The collection of flies was based on several factors; weather, sewage disposal and population density. According to the previous factors, specimens were collected from areas of high and low socio-economic levels. In addition, thirteen flies were collected from a poultry farm in Taif city. 83 different microbial species were isolated from the flies collected from all the, three cities and poultry farm. Among the isolated microbial species, only 30 species were Within the target family: Enterobacteriaceae. The medical significance of these organisms was discussed. It should be noted, however, that Salmonella species were conspicuously absent from the isolated members of the enterobacteria in this study. Sensitivity tests to different antibiotics were also carried out for I Borne members of the isolated enterobacteria.

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