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Identification of *Candida* species isolated from medical devices infected connected medical ICU patient and evaluate their biofilm formation and drug susceptibility

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Vandida albicans is the fourth common cause of chronic fungal infections that causes both mucosal and deep tissue infections that vare able to form biofilm. The virulence factors of *Candida* biofilm formation are looking for a candidate binding occur to both living and non-living. Nowadays, mortality and morbidity due to biofilm infections via medical devices, such as catheter and implants, are increasing and Candida is one of the most common causes of nosocomial infections. One of the important characteristics of biofilms is broad-spectrum resistance to antimicrobial drugs. The aim of this study was identification of clinical isolates of Candida isolates from different tools connected to hospitalized patients, evaluation of fluconazole sensitivity of these isolates and biofilm formation. A total of 60 samples of medical devices attached to patients in ICU (Foley catheter, nasal feeding tube, Truck and endotracheal tube) were investigated. Yeast colonies isolated from medical devices using routine laboratory procedures such as tests of germ tube culture on cornmeal-Tween 80 agar medium CHROM agar were identified. Testing to determine the MIC of fluconazole for all samples was carried out using Broth Micro dilution according to CLSI. To assess biofilm formation and MTT Tetrazolium salt according to revive the 96-microplates. It took over half of the isolates of Candida and the ability of biofilm formation was read by ELISA reader at a wave length of 570 nm. The data obtained using the t-test analysis was performed using SPSS software. Out of 60 samples taken from medical devices 48 isolates of Candida with an abundance of Candida albicans in 2 cases (42%), C. glabrata in 13 cases (27%), C. krusei in 8 cases (17%) and C. tropicalis in 7 cases (14%) were identified. Among the isolates, 9 isolates susceptible to fluconazole (19%), 10 cases dose dependent (21%) and 29 were resistant to fluconazole (60%) patients. Candida isolates had the ability to form biofilms. C. albicans and C. tropicalis were respectively the maximum and minimum power biofilms on Foley catheter. The results showed that the effect of fluconazole on Candida, most of Candida species, which were isolated from different instruments, were resistant to the drug. All isolates had the ability to form biofilms, although it has the power to produce biofilm isolates according to different sources. Biofilm formation occurs on a sample that is more resistant than susceptible.

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Breeding of infection-resistant plants

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Plant infectious diseases lead to considerable damage; hence, the causes of microorganism infectivity are of considerable interest. According to the active susceptibility hypothesis, infectivity is not a microorganisms' property but rather the host's capacity for attracting the microbial flora whose properties are useful for the host with normal host-microorganism interactions being mutualistic and infectious diseases resulting from disturbance of these interactions. The microorganisms' usefulness is obviously determined by the genes whose products are necessary for the host. Therefore, integration of these microbial genes into the plant genome is expected to render the plants infection-resistant: The plant will receive the necessary microbial gene products and hence, will not develop susceptibility to these microorganisms.

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