

Determination of Biofilm Formation in Different Clinical Candida Species and Investigation of Effects of Some Plant Substances on These Biofilms

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Abstract : Candida species which often exist as commensal microorganisms in healthy individuals are major causes of important infections, especially in AIDS and immunocompromised patients, by means of their biofilm formation abilities. Therefore, in this study, determination of biofilm formation in different clinical strains of Candida species, investigation of strong biofilm forming Candida strains, examination of clinical information of each strong and weak biofilm forming Candida strains and investigation of some plant substances' effects on biofilm formation of strong biofilm forming strains were aimed. In this respect, biofilm formation of Candida strains was analyzed via crystal violet binding assay. According to our results, biofilm levels of strains belong to different Candida species were different from each other. Additionally, it is also found that some plant substances effect biofilm formation. All these results indicate that, as well as *C. albicans* strains, other non-*albicans* Candida species also emerge as causative agents of infections and have biofilm formation abilities. In addition, usage of some plant substances in different concentrations may provide a new treatment against biofilm related Candida infections.

Keywords : anti-biofilm, biofilm formation, Candida species, biosystems engineering

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