

Pathogenicity Testing of Clinical *Candida* Isolates by Assessing Biofilm Formation and their Adhesion to Urinary Catheter Material

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<http://dx.doi.org/10.22207/JPAM.11.4.35>

(Received: 15 November 2017; accepted: 20 December 2017)

Candida is one of the most common microorganisms forming biofilms. The present study was aimed to evaluate biofilm formation in different clinical Candida isolates and their adhesion to urinary catheter materials. The study comprised 150 Candida isolates from clinical samples. Colonies of Candida were identified to species level using standard tests. Biofilm formation was studied on microtitre plates. Adhesion assay for the biofilm producers was performed on urinary catheter. Statistical Analysis was done by Chi square test. From 150 isolates collected; highest number of candida isolates were recovered from blood culture (44%) followed by urine (22.7%). Though *C. albicans* was the commonest isolate (44%), *C. krusei* was the most common species isolated from blood cultures (42 of 66; 63.6%). A total of 41 *Candida* isolates were found to produce Biofilm (27.3%; 41/150). The proportion of the biofilm producers in blood (27.3%), urine (32.4%) and exudates (29.6%) was almost identical. Lowest proportion of biofilm producers was found on dentures (17.4%) (Non-significant; p value 0.53). Higher biofilm producing tendency in urinary isolates may be contributory to their potential to cause UTI in catheterized patients. Higher isolation of *C. krusei* from blood samples was a noteworthy finding.

Keywords: Candida, Biofilm, adhesion, urinary catheter.

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