

***Candida* Species Distribution, Genotyping and Enzyme Production of *C. albicans* Isolated from Denture Stomatitis Patients and Healthy Individuals**

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Denture stomatitis (DS) associated with *Candida* is common among removable denture wearers. This study investigated species distribution of oral *Candida* isolated from DS patients and healthy individuals. Furthermore, phospholipase, esterase and hemolysin production by oral *C. albicans* from DS and healthy individuals were evaluated. *Candida* isolates from DS patients (n=38) and a comparable healthy group (n=23) were speciated using chrome agar, ABC genotyping and PCR-RFLP. Enzyme production by *C. albicans* was evaluated using culture plate assays. Chrome agar test revealed 18 *C. albicans* and 05 non *C. albicans* isolates in healthy group. In DS group, there were 29 *C. albicans* and 09 non *C. albicans* isolates. According to ABC genotyping, *C. albicans* genotype A was the commonest genotype (66.8%) followed by genotypes C (21.1%) and B (13.1%) among DS patients. The 23 *Candida* isolates from healthy individuals consisted of genotype A (78.3%) followed by genotypes C (17.4%) and B (4.3%). PCR-RFLP showed that *C. albicans* (76.3%) was the commonest species followed by *C. glabrata* (13.2%), *C. parapsilosis* (5.2%) and *C. tropicalis* (5.2%) among DS patients. In healthy group, the commonest species was *C. albicans* (78.3%) followed by *C. parapsilosis* (8.7%), *C. glabrata* (4.3%), *C. tropicalis* (4.3%) and *C. guilliermondii* (4.3%). Phospholipase, esterase and hemolysin production by *C. albicans* from DS patients was significantly higher ($P < 0.05$) than *C. albicans* from healthy individuals. Foregoing data confirms that *C. albicans* is the leading *Candida* spp. isolated from DS patients and healthy individuals. Non *C. albicans* *Candida* are isolated from both groups occasionally. Considering the current sample, *C. albicans* genotype A remains the predominant genotype followed by genotypes C and B in both DS patients and healthy individuals. *C. albicans* from DS patients have significantly higher activities of phospholipase, esterase and haemolysin compared to commensal *C. albicans* indicating their contribution in pathogenesis of DS.

Key words: *Candida* characterization, denture stomatitis, genotyping, PCR-RFLP, enzyme production

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