Molecular Characterization of Oral *Candida* Sp.

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Objectives: The purpose of this study was to compare the prevalence and determine the molecular characteristics of oral *Candida* sp. found in selected sites of the oral cavity.

Methods: Samples were collected from the oral cavity of periodontal patients, denture wearers and non-denture wearers with healthy oral cavity. The samples were cultured on Brain-Heart Infusion (BHI) and Sabaroud Dextrose Agar (SDA) plates, and then scored colony-forming units (CFUs) following incubation. Random colonies were isolated, and then DNA extraction was carried out. The genetically conserved internally transcribed spacer (ITS) regions of candidal rDNA were investigated by amplifying those regions with polymerase chain reaction (PCR) primers and subjecting the amplified DNA to *MspI* restriction enzyme digest and gel electrophoresis. Results: The colonization of *Candida* sp. was found to be comparatively more prominent in most of the oral sites of periodontal patients and healthy denture wearers. Comparing the sizes of the PCR products and restriction fragments from isolated clinical samples and those from ATCC samples have enabled differentiation of candidal species such as *Candida albicans, Candida glabrata* and *Candida lusitaniae*. Conclusion: Changes to the oral environment may affect the oral candidal population. The rDNA ITS region may potentially be useful for oral candidal species identification.