Prevalence of *Candida* species colonization at selected oral sites in periodontal patients and denture wearers

Zahir RA *, Fathilah AR, Baharuddin NA, Omar RA, Himratul-Aznita WH

Department of Oral Biology, Faculty of Dentistry, University of Malaya, Malaysia

**Objective:** The purpose of this study was to compare the prevalence of oral *Candida sp.* colonization at selected sites in the oral cavity of periodontal patients and denture wearers. **Methods:** Samples were collected from selected sites in the oral cavity of 48 individuals from three target groups (1) test groups: periodontal patients and denture wearers with healthy oral cavity and (2) control group: non-denture wearers with healthy oral cavity. The samples were transported on ice to the laboratory in brain-heart infusion (BHI) broth and then subjected to serial dilution before plating on BHI and Sabaroud dextrose agar (SDA) plates. Following incubation at 37°C for 48 hours, the plates were scored for colony-forming units (CFUs), with the CFU counts on the BHI plates representing total microbial population and the CFU counts on the SDA plates representing total candidal population. **Results:** The ratio of the mean CFU of yeast colonies on the oral sites of periodontal patients to control group individuals were as follows - saliva: 3.7, tongue dorsum surface: 2.43, palate surface: 1.86, and buccal mucosa surface: 0.56. Meanwhile, the ratio of average candidal CFUs of denture wearers to control group individuals were as follows - saliva: 7.61, tongue dorsum surface: 2.98, palate surface: 17.04, and buccal mucosa surface: 0.84. **Conclusions:** In general, except for on the buccal mucosa surface, the colonization of *Candida sp.* was found to be more prominent in the oral cavity of periodontal patients and healthy denture wearers compared to the oral cavity of healthy non-denture wearers.

**Keywords:** oral *Candida sp.*, denture, periodontal disease