Influence Of Periodontal Disease On The Distribution Of Candida krusei

A.R. FATHILAH¹, W.H. HIMRATUL-AZNITA¹, R.H. AHMAD-ZAHIR¹, J. MARHAZLINDA², and N.A. BAHARUDDIN¹, ¹Univ. of Malaya, Kuala Lumpur, Malaysia, ²University of Malaya, Kuala Lumpur, Malaysia

Objective: To observe the influence of periodontal disease on the distribution of Candida krusei at various sites in the oral cavity. Methods: Samples were collected from 5 sites (tongue, palate, buccal mucosa, saliva and gingival sulcus) in 15 subjects with healthy periodontium and 17 subjects with periodontal disease. Samples were cultured in Brain Heart Infusion Broth (BHI) and Chrom Agar (CA) over an incubation period of 48 hrs. Colonies that appeared pink velvet were noted for the presence of Candida krusei. Data on the occurrence of the colonies was entered and analysed using SPSS. Results: The presence of Candida krusei was observed in 80% of subjects with healthy periodontium and 41% of subjects with periodontal disease. Comparatively an increase in the presence of Candida krusei was noted in periodontal patients at the palate and saliva, whereas a decreased was recorded at the buccal mucosa and gingival sulcus. The proportion at the tongue however, remain unchanged. Chi square test shows significant difference in the presence of Candida krusei between subjects with healthy periodontium and periodontal patients (p=0.026), whereby two-third of Candida krusei isolates were observed in individuals with healthy periodontium. Conclusion: The distribution of Candida krusei at different sites in the oral cavity appeared to be influenced by periodontal disease.

This study was supported by FRGS grant (FP011/2006A) and Research University Grant (FS010/2007A).