

Association of Diabetes Mellitus on the Development of Oral Candidiasis

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Diabetes mellitus (DM) being a chronic metabolic disorder has a tendency for chronic complications. Several studies have highlighted oral candidiasis (OC) as one such chronic manifestation. The present study aims to estimate the incidence, isolation and identification, correlations with biochemical and microbiological parameters and other associative factors of OC in the diabetic population. The objective is to determine the association of DM on the development of OC among known diabetic patients. A cross sectional study was conducted using 100 DM subjects, 50 non diabetic endocrine subjects and 50 apparently healthy subjects at the Diabetic and Endocrinology Clinic, Colombo South Teaching Hospital. Blood, saliva and an oral rinse were obtained for fasting blood glucose (FBG) & HbA1c estimation, fasting salivary glucose (FSG) estimation and for isolation and identification of candida respectively. The DM group depicted 66 % positivity for candida while only 58 % and 46 % were positive in the non-diabetic endocrine and apparently healthy groups respectively. Significant correlations were observed between the logarithmic values of the total CFU/mL and FSG levels ($P < 0.05$). Furthermore, significant associations were observed between candida growth and wearing dentures ($P < 0.001$), denture wearing duration ($P < 0.01$) and FSG levels ($P < 0.05$). The incidence of candida growth was increased in the diabetic population. Wearing dentures and FSG levels promote the growth of candida within the oral cavity. A regular dental checkup is advised to be included in the management and care of diabetic patients.

Keywords: Salivary glucose, Oral candidiasis, Diabetes mellitus, Dentures