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2227 Extracellular Enzymes, Biotypes and Genotypes of Oral C. albicans in Diabetics

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Haemolysin is a relatively recently described extracellular enzyme of *Candida* species. **Objective:** The aim of this study therefore was to biotype, genotype and then to compare haemolysin, proteinase and phosphlipase production of oral *Candida albicans* isolates from diabetic and healthy Chinese. **Method:** A total of 19 each from patients with Type II diabetes mellitus(DM) and controls were obtained using the oral rinse technique. The yeasts were characterised using a biotyping and a genotyping system. The enzyme production evaluated in vitro by three different plate assays. Genotyping was performed by randomly amplified polymorphic DNA technique (RAPD) and the data subjected to computerised cluster analyses. **Result:** The results showed that the major biotype from the DM group and the control group was A1R (42.11%) and J1R(36.84%) respectively. Genotyping and dendogram analyses of RAPD gel profiles failed to reveal specific genotypic clusters of C.*albicans* associated with diabetic patients. No significant difference in either proteinase or phospholipase actvity was noted in isolates from the DM group compared with the controls ($p>0.05$). A significantly higher haemolysin activity was found in the control group compared with the DM group ($p<0.05$). **Conclusion:** The result in the haemolytic activity of C. *albicans* in diabetic patients, reported for the first time, needs to be confirmed with a larger patient group. (Supported by the Committee for Research and Conference Grants of the University of Hong Kong)

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