



SEAADE 19th Annual Scientific Meeting in Manila from 7 – 8 October 2008
ABSTRACT FORM FOR FREE PAPERS COMMUNICATION
(Dateline of Submission: 15 July 2008)

The Correlation Between Gingival Crevicular Blood Sugar and Peripheral Blood Sugar in Diabetic Patients

*Ching Zong Wu^{1,2}, Chia Yen Lee¹, Ping Chuang Lai¹

¹Taipei Medical University School of Dentistry, Taipei

²LoHsu Foudation, Lo-Tung Hospital Dental Department, LoTung, Taiwan.

Traditionally, diabetes mellitus was diagnosed by fasting plasma blood sugar higher than 126mg/dl. The purpose of this study is to evaluate the correlation between gingival crevicular blood sugar concentration and peripheral blood sugar concentration, and it would be helpful for dentist to use GCBS as an adjunct tool to screen out the DM patients. Thirty volunteers (12 diabetic patients and 18 non-diabetic patients), aged from 20 to 70, without systemic diseases such as anemia, polycythemia, intake of substance that interfere with the coagulations systemic, were enrolled and subjected to routine clinical periodontal examination. Front teeth or teeth with pocket greater than 3 mm were chosen and gauze was used before the blood samples were taken with autopipettes. Gingival crevicular blood were taken instead of finger-stick capillary blood. Then gingival crevicular blood was transferred to the blood sugar test strips (Accu-Check Test Strips), and read in blood sugar machine (Roche Accu-Check Advantage Glucose Meter HMS-86001A). Every volunteer had his peripheral blood compared and analyzed by correlation with GCBS. The result of the study showed highly significant correlation ($r=0.9853, p<0.0001$) between GCBS and peripheral blood sugar. In conclusion, it is supported that gingival crevicular blood sugar concentration could be used alternatively as an adjunct to help dentists to screen DM patients in dental clinics. This study is supported in part by grant from NSC 92-2815-C-038-011-B and Pohai research grant 94-1D-02.

ORAL PRESENTATION: SO-4