

A community study of periodontal attachment loss in smokers

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Smoking increases the risk for periodontal diseases and adversely affects healing response after periodontal treatment. Objective: This pilot cross-sectional study compared per-sextant periodontal attachment levels of smokers and non-smokers attending private dental clinics in Hong Kong. Methods: One thousand adults aged 25 to 64 years underwent an oral clinical examination and were asked to complete a set of questionnaires covering demographic characteristics, personality traits (DASS-T), coping (COPE), daily strain level and dental anxiety level (SDAxI). Medical history and smoking habits were also recorded. Results: Of the participants, 9.0% had a healthy periodontal status, whereas 52.5%, 23.3%, 10.1% and 5.1% showed low, moderate, high and severe attachment loss, respectively. Most participants (86.0%) were non-smokers; 1.1%, 3.9%, 3.5% and 5.5% were very light, light, moderate and heavy smokers, respectively. Corresponding full-mouth mean loss of clinical attachment levels (CALs) were 2.0 mm, 1.5 mm, 1.4 mm, 1.8 mm and 2.9 mm ($P < 0.0001$, ANOVA). After adjustment for factors known to be associated with an increase in loss of CAL (age, sex, diabetes mellitus, personality trait, coping, education, daily strain and dental anxiety), the mean per-sextant loss of CAL in non-smokers was 2.1 mm; in heavy smokers, the mean loss of CALs for the anterior sextants were significantly higher than that for the posterior sextants (3.2 mm vs. 2.8 mm; $P < 0.05$, Tukey's HSD test). Conclusion: In Hong Kong, heavy smokers are more likely to experience attachment loss than non-smokers, and their anterior sextants are affected more than their posterior sextants. Further investigations are needed to elucidate the effects of smoking on periodontal attachment loss. (Supported by CERG HKU 7331/00M.)

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[The Preliminary Program for 21st International Association for Dental Research - South East Asia Division : Annual Research Meeting](#)