ABSTRACT

A cross-sectional study was conducted to evaluate the effects of cigarette smoking on severity of periodontal disease among taxi motor-cyclists in Thung-Kru District, Bangkok. Subjects were divided into two groups; smokers (n=144) and non-smokers (n=69). A structured questionnaire and an assessment of periodontal status were employed. Measurements of periodontal status were composed of six indices, i.e., Plaque Index, Calculus Index, Gingival Index, Probing Depth, Gingival Recession Level and Probing Attachment Level. Only six teeth, i.e., maxillary right first molar, maxillary left central incisor, maxillary left first bicuspid, mandibular left first molar, mandibular right central incisor and mandibular right first bicuspid were examined by PCPUNC 15 probe. Relationship between dependent variables and independent variables were tested by univariate and multivariate analysis. Chi-square test was used in univariate analysis while logistic regression was employed in multivariate analysis. Strength of association was described by odds ratio. The severity of periodontal disease was represented by probing depth.

This study showed that there was no significant association in plaque accumulation, probing depth, gingival recession level and probing attachment level. The smokers had significantly calculus formation, 8.32 times more than non-smokers (p-value = <.001). They also had significantly pronounced signs and symptoms of gingival inflammation, 4.04 times less than non-smokers (p-value = <.001). The number of cigarettes smoked per day had significant association with probing depth (p-value = 0.01). The duration of smoking had significant association with probing attachment level (p-value = 0.002). Considering packyears of smoking, it was significantly associated with probing depth and probing attachment level (p-value = 0.03, 0.03 respectively). The moderate smokers had significantly more calculus and gingival inflammation than very light smokers.