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ORIGINAL ARTICLE

THE EFFECTS OF DUAL SMOKING ON PERIODONTAL HEALTH AND SALIVARY TUMOR NECROSIS FACTOR ALFA AMONG SUBJECTS FROM DUHOK CITY.

ABSTRACT

Background: Smoking has been considered a risk factor for morbidity and mortality among both teenagers and adults. Waterpipe smoking has harmful effects on oral health, which might be similar to those of cigarette smoking. Dual smoking appears to be more deleterious on health than cigarette or Waterpipe smoking alone. The effects of dual smoking on clinical periodontal parameters and inflammatory biomarkers remain inadequately studied in our region.

Aim: The study aimed to evaluate the effects of dual smoking on periodontal health by the means of clinical periodontal parameters and a selected inflammatory biomarker.

Materials and methods: One-hundred and thirty six volunteered participants were involved in the study. A questionnaire was used to collect demographic data. Plaque index (PI), gingival index (GI), periodontal probing depth (PPD), and clinical attachment loss (CAL) were used to evaluate periodontal health. ELISA assay was used to measure salivary tumor necrosis factor (TNF- α). Statistical analysis was performed using the software IBM SPSS Statistics (Version 29.0.2).

Results: The current study discovered that the PI, PPD, and CAL indices were significantly higher among the dual smokers (DS), cigarette smokers (CS), and Waterpipe smoker (WPS) groups as compared to the non-smokers (NS) ($p < 0.05$). The level of salivary TNF- α of DS group was statistically higher than NS and WPS groups ($p < 0.05$), though salivary TNF- α level of DS group was higher than CS group; yet the difference was not statistically significant ($p > 0.05$).

Conclusion: The current study concluded that dual smoking has more effects on clinical periodontal parameters than cigarette or waterpipe smoking alone. On the other hand, the level of salivary TNF- α among the dual smokers was statistically higher than the non-smokers which might be consider as a potential risk factor for periodontal disease.