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## The effect of waterpipe smoking on periodontal health

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**Abstract:** Purpose: To determine the effect of waterpipe smoking on the periodontal health. Materials and methods: The study included 190 participants who were categorized into four groups; cigarettes smokers, waterpipe smokers, dual smokers, and non-smokers. Intraoral examination included plaque (PI), gingival (GI) and calculus (CI) indices, probing pocket depth (PPD), clinical attachment level (CAL), and bleeding on probing (BOP). Results: The four groups differed significantly in the prevalence and extent of periodontal disease. Pairwise comparison tests showed that the means of percentages of sites with PPD > 3mm, PPD > 4mm, CAL > 1mm, and bleeding on probing were significantly higher among smoking groups compared to none smoking group ( $p < 0.05$ ). After adjusting for age, cigarettes smokers (OR = 4.6), waterpipe smokers (OR = 4.3), and dual smokers (OR = 4.9) were significantly more likely to have periodontal disease compared to non smokers. When data were analyzed according to smoking method, no significant differences in the odds of periodontal disease were detected between different smoking groups ( $p > 0.05$ ). Conclusion: Waterpipe tobacco smoking is not an alternative, safe way of smoking considering periodontal disease. Thus, global actions against waterpipe smoking are required. Key words: hookah, periodontal disease, periodontal health, tobacco smoking, waterpipe