The effect of salivary 8-hydroxyguanosine levels in smokers and non-smokers with chronic periodontitis: A case control study

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Aim: The aim of this case-control study was to estimate the effect of initial periodontal treatment on salivary 8-hydroxydeoxyguanosine (OHdG) levels in smokers and non-smokers with and without chronic periodontitis.

Methods: A total of 40 subjects were divided into 4 groups. Group 1-10: Smokers with chronic periodontitis, group 2-10 consists of non-smokers diagnosed with chronic periodontitis, group 3-10 consists of clinically healthy subjects, and group 4-10: Periodontally healthy smokers. Initial examination include collection of saliva for the estimation of 8-OHdG following which, clinical parameters i.e. gingival and plaque index along with pocket probing depth and clinical attachment levels were measured. All groups received initial periodontal therapy except clinically healthy subjects. On the 15th day recall visit, similar parameters were recorded.

Results: The results demonstrated that the smokers category with and without chronic periodontitis had higher levels of salivary 8-OHdG compared to other groups which were of statistical significance (p<0.05). Initial periodontal therapy did not exhibit significant alterations in the values.

Conclusion: 8-OHdG levels could be considered as a diagnostic biomarker for periodontal diseases associated with risk factors.

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