The Immunoglobulin-A Levels in Saliva of Smokers and Non-Smokers with Periodontal Disease

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Abstrak

The smoking habit has been associated with a variety of deleterious changes in the mouth including periodontal tissue. Several studies indicate a relationship between smoking and periodontal disease, including loss of alveolar bone, periodontal attachment as well as periodontal pocket formation. Subjects with a high standard of oral hygiene have been found to have greater bone loss in smokers than non-smokers. Generally accepted, periodontal treatment procedures are less efficient in smokers. Therefore, it is concluded that tobacco smoking is associated with an increased risk for destructive periodontal disease. This study is to investigate the effect of smoking on the oral immune response in subjects with periodontal disease by measuring the concentration of IgA in saliva from smokers and non-smokers with gingivitis and healthy gingiva. The results were compared and analysed by ANOVA. The investigation showed that the level of IgA in saliva from smokers with severe periodontitis (x=39.30 IU/ml) as well as mild periodontitis (x=84.86 IU/ml) were lower than non-smokers (severe periodontitis x=51.67 IU/ml; mild periodontitis x=95.41 IU/ml). Furthermore, smokers with gingivitis (x=123.76 IU/ml) and healthy gingiva (x=71.55 IU/ml) also had lower IgA levels in saliva compared with the non-smokers (gingivitis, x=145.11 IU/ml; healthy gingiva x=75.19 IU/ml). In conclusion, the investigation showed that all smokers especially smokers with periodontal disease had lower intra oral immune response compared with the non-smokers.