

GINGIVAL PIGMENTATION IN SMOKER AND NONSMOKER DARK-SKINNED INDIVIDUALS: A CLINICAL AND HISTOLOGICAL STUDY

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ABSTRACT

The objective of the present study was to investigate the relationship between cigarette smoking and gingival pigmentation in dark-skinned individuals. The study was conducted on 296 dark-skinned adult dental patients (109 smokers and 187 non-smokers). The frequency, as well as the clinical and histological! Patterns of gingival pigmentation were compared between smokers and non-smokers. The results showed a significantly higher frequency and a more widespread gingival pigmentation in smokers compared to non-smokers.

In heavy smokers, both the frequency and extension of gingival pigmentation were significantly greater than in light smokers. The labial gingival was the most frequently observed pigmentation site in both smokers and non-smokers. Histologically, there was no difference in the pattern of melanin distribution between smoker and non-smoker gingival tissues. Thus, in dark-skinned individuals with genetically determined

high frequency of gingival pigmentation, tobacco use could still be associated with a higher frequency, and a markedly more extensive gingival pigmentation. Tobacco consumption seems to activate melanocytes leading to increased melanin production, but with no specific changes in the pattern of melanin distribution within the gingival tissue. The biological significance of this observed tobacco-related gingival pigmentation is still to be investigated.