

عنوان مقاله:

Effect of Cigarette Smoking on Eosinophil Count in Periodontal Inflammation: A Histopathologic Study

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خلاصه مقاله:

Background: It has been shown that cigarette smoking is associated with decreased number of eosinophil cells in blood and lung. Cigarette smoking is one of the major causes of gingival problems and periodontitis. The effect of cigarette smoking on eosinophils in gingiva has not been elucidated. The aim of this study was to determine the effect of cigarette smoking on eosinophil count in periodontal inflammation. Methods: The study was a case-control study. Forty paraffin embedded block of periodontitis obtained from ۲۰ cigarette smokers and ۲۰ nonsmokers were evaluated histochemically for eosinophil count. Using hematoxylin-eosin stained sections, the number of eosinophils was determined per high power field at $\times 400$ magnification. One-way analysis of variance (ANOVA), t test, Duncan and Pearson correlation coefficient tests were employed for data analyses at the level of $P \leq 0.01$. Results: The mean number of eosinophils in nonsmokers was significantly higher than that in smokers ($P < 0.001$). The intensity of gingivitis and periodontitis in none of nonsmokers (GI: $r = 0.2$, $P = 0.37$; PI: $r = 0.01$, $P = 0.95$) and smokers (gingival index [GI]: $r = 0.04$, $P = 0.83$; periodontal index [PI]: $r = 0.23$, $P = 0.31$) were correlated to eosinophil count. The eosinophil count was higher in heavy smokers ($P = 0.03$). Conclusions: The eosinophil count plays no effective or critical role in smoking-induced periodontal inflammations. Increasing time of exposure to cigarette smoke affects eosinophil count in adult gingivitis/periodontitis. The dual effect of eosinophils in progressing the periodontal inflammation needs more investigation.

کلمات کلیدی:

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