

THE ROLE OF GENDER ON THE SEVERITY OF PERIODONTAL DISEASE IN SMOKERS

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ABSTRACT

Males exhibit greater levels of periodontal disease than females. To investigate the role of gender on severity of periodontal disease, a total of 1,426 subjects (741 females and 685 males) 25 to 74 years of age, were evaluated. Mean clinical attachment loss (CAL) and mean radiographic interproximal alveolar bone loss (ABL) were measures of periodontal destruction. We adjusted for age, plaque, level of smoking (packyear), diabetes, education, previous dental care levels of porphyromonas gingivalis and Bacteroides forsythus: risk indicators previously found in this same population. After adjustment for these factors, mean CAL was significantly greater for males as compared to females (2.43 vs 2.18 mm, respectively; $P < 0.0001$), mean ABL revealed the same (2076 vs. 2048 mm; $P < 0.0001$). Those who never smoked were then compared to current smokers. For those who never smoked. There were no significant differences in CAL between males and females (2.04 vs 1.93 mm), and differences in ABL between males and females (2.18 vs 2.05 mm). In contrast, for current smokers attachment loss was significantly greater in males as compared to females (2.83 vs 2.46 mm); $P = 0.005$, and ABL was also greater for males who smoked as compared to females who smoked (3.27 vs 2.93 mm; $P = 0.019$). We observed a greater increase in periodontal disease among male as compared to female smokers after adjusting for known periodontal risk indicators. Since adjusted periodontal disease levels are comparable in males and females who do not smoke, the response to smoking accounts, at least in part, for the increased periodontal disease observed in males.