

## ***2324 Gender and the Relationship of Periodontal Disease to CVD-related Mortality***

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Multiple studies document an association between periodontal disease and cardiovascular disease (CVD); however, recent evidence suggests that gender may modify this relationship. Objective: The present study examined the relationship of periodontal disease to CVD-related mortality in the Baltimore Longitudinal Study of Aging (BLSA). Methods: Panoramic radiographs were available for 140 men and 156 women (mean  $\pm$  SD age: 53.5  $\pm$  16.5 and 57.5  $\pm$  16.8, respectively). Alveolar bone loss was scored as none, slight, moderate, or severe based on radiographic assessment of crestal bone height (excluding 3rd molars). For purpose of analysis, alveolar bone loss was dichotomized as none-slight and moderate-severe. Data were analyzed using Chi Square analysis and Cox proportional hazards regression model, adjusting for age, smoking, diabetes, coronary hearth disease, total cholesterol, triglycerides, number of teeth, and body mass index. Results: Men were found to exhibit radiographic evidence of more advanced (moderate-severe) alveolar bone loss compared to women (15.0% vs. 34.6%, respectively,  $p \leq 0.05$ ) but retained a comparable number of teeth (24.8  $\pm$  5.3 vs. 24.0  $\pm$  5.3, respectively). The Hazard Ratio for all-cause mortality was 1.10 (CI 0.03-46.7) for men and 0.08 (CI 0.01-1.28;  $p \leq 0.08$ ) for women with moderate-severe bone loss. Number of remaining teeth was inversely related to all-cause mortality in women (HR = 0.87, CI 0.80-0.95,  $p \leq 0.01$ ) but not in men (HR = 0.98, CI 0.86-C 0.95). Of CVD-related deaths, men were significantly more likely to have had moderate-severe alveolar bone loss than women (Odds Ratio = 2.5, CI 1.3-4.8;  $p \leq 0.05$ ). Conclusions: Findings from the BLSA indicate that CVD-related mortality is more likely to be associated with advanced alveolar bone loss in men than in women, suggesting that gender modifies the relationship between periodontal disease and CVD-related events.

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