ASSOCIATION BETWEEN DEPRESSIVE AND ANXIETY DISORDERS AND PERIODONTAL DISEASE: ANALYSIS OF 1999-2004 NHANES DATA

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Prospective studies suggest that emotional factors, including depression and anxiety may be risk factors for cardiovascular disease (CVD). Although several mediators of these associations have been proposed, the precise mechanisms are yet unidentified. Accordingly, we examined the relationships between depressive and anxiety disorders and periodontal disease, a possible novel mediator of the emotional factors-CVD association, given its separate links with depression, anxiety and CVD. Data from the 1999-2004 waves of the National Health and Nutrition Examination Survey (NHANES) - a large probability sample representative of the U.S. population - were examined. Participants were 1,969 individuals aged 20-39 years, who were administered the major depression, panic disorder, and generalized anxiety disorder modules of the Composite International Diagnostic Interview. Participants were also examined by a licensed dentist, with periodontal disease defined according to the Healthy People 2010 definition: one or more sites with loss of attachment of ≥ 4mm. The sample included 122 (6.2%) periodontal disease, 126 (6.4%) major depression and 71 (3.6%) anxiety disorder cases. Logistic regression analyses revealed that the presence of an anxiety disorder, but not a depressive disorder was associated with an increased likelihood of periodontal disease (Anxiety: OR=2.57, 95% CI: 1.12-5.89, p=.02; Depression: OR=1.12, 95% CI: 0.51-2.45, p=.77). Adjustment for age, sex, race-ethnicity, diabetes, pregnancy, and smoking slightly attenuated the magnitude of odds ratio for anxiety disorder (OR=2.03, 95% CI: 0.85-4.88, p=.11); however, it fell short of significance. These findings
suggest that an anxiety disorder, but not major depression, may be a risk factor for periodontal disease.