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Association Between Obstructive Sleep Apnea and Periodontitis Among Male Adults Attending a Primary Healthcare Facility in Jordan

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Abstract: Purpose: To determine the association between periodontitis and a high risk for obstructive sleep apnea (HR-OSA). Materials and Methods: A sample of 296 males with a mean (? SD) age 40 (8.5) years was selected. Subjects who scored positive in two or more categories of the Berlin questionnaire were considered as having HR-OSA. Results: Based on the self-reported symptoms of obstructive sleep apnea, 15% of patients were considered as HR-OSA. Patients with HR-OSA showed higher probing pocket depth (PPD) and clinical attachment level (CAL) compared with those with low risk for obstructive sleep apnea (LR-OSA) - 2.35 ± 0.69 vs 1.97 ± 0.34 ($p = 0.000$) and 2.95 ± 0.82 vs 2.12 ± 0.55 ($p = 0.000$), respectively. Patients with HR-OSA were more likely to have periodontitis (OR = 2.3; 95% CI: 1.03/5.10) compared to patients with LR-OSA. The prevalence of periodontitis varied significantly only among patients according to their response to category 1 (37% responded positively and 20% responded negatively, $p = 0.003$). When the OSA variable was replaced by the individual categories (1, 2 and 3), patients with a positive category 1 (OR = 2.27; 95% CI: 1.14/4.45) were more likely to have periodontitis than were patients with a negative response. Conclusion: The risk of finding periodontitis in HR-OSA patients was approximately double that of LR-OSA patients. Habitual snoring was also associated with increased risk for periodontitis.