PERIODONTAL DISEASES

Periodontitis and peri-implantitis

BACKGROUND

The use of dental implants for edentulous patients is a very common restorative approach, but the number of individuals who develop peri-implant diseases has also increased considerably. The presence or history of periodontitis (PE) has been widely studied as a risk factor for peri-implantitis (PI), with varying results. The dental implant and teeth share a similar microbiota, which supports the concept that periodontal pathogens may be involved in peri-implant infections. Although previous systematic reviews have not produced a consensus about the potential association between PE and PI, a systematic review of observational studies of this association with rigid study selection criteria was undertaken.

METHODS

The Medline, via PubMed, and Cochrane Library databases were searched up to March 2018. The goal was to identify clinical studies reporting data on PE and PI with a confirmed diagnosis of PI based on peri-implant probing depth and peri-implant bleeding on probing and a length of function of implants of at least 1 year. Nineteen articles were identified.

RESULTS

Just 2 of the studies showed no association between PE and PI. Most of the studies evaluated had a low risk of bias. Six studies found PE history was significantly associated with an increased occurrence of PI. Twelve studies found PE had a statistical association with a higher risk for PI.

Meta-analysis of 16 studies revealed patients with PE had a 2.29 higher chance of PI than patients without PE. Three studies evaluated chronic PE. Patients with chronic PE had a 2.89 higher chance of having PI than patients without PE. Five studies in a subgroup meta-analysis showed that implants in persons with PE had a 2.15 higher chance of having PI than implants without PE.

DISCUSSION

Having a history of PE is a potential risk factor for PI. In fact, a significant association exists between PI and PE, with PE possibly jeopardizing the longevity of dental implants. Comparisons between this review and others in the literature are complicated by methodological differences, especially with the assessment of the primary outcome. Future prospective studies should use clear definitions of the diagnostic criteria for PI and gold-standard parameters to define PI cases. Confounding factors also need to be controlled. The criteria for the diagnosis of PE should similarly be clear and uniform.

Clinical Significance

Dentists should provide effective periodontal therapy before implant rehabilitation of patients who have active PE. This will help to reduce the risk of developing PI. Persons who have a history of PE but are rehabilitated using implants need to be closely monitored because they are more susceptible to PI.

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SLEEP MEDICINE

Sleep bruxism and sleep quality in middle age

BACKGROUND

Sleep bruxism is commonly manifest as clenching and grinding singly or in combination. It can lead to tooth attrition, fracture, destruction of tooth tissue, temporomandibular disorders, morning headaches, or facial myalgia. Polysomnography (PSG) is used to accurately diagnose sleep bruxism. Severe sleep bruxism may cause a lack of refreshment in the morning or morning headache, but it is seldom associated with disturbed sleep per se. An increased number of micro-arousals may be experienced, but otherwise healthy people who have sleep bruxism generally have a normal sleep