Obstructive sleep apnea, bruxism, and the TMD patient

David Shirazi
TMJ and Sleep Therapy Centre, USA

Obstructive Sleep Apnea, otherwise called Sleep Disordered Breathing, is a well documented sleep breathing disorder with an extremely wide spectrum of correlated medical and dental consequences. The dental community as health providers can play an important role in referral as well as management for the disease itself. Meta-analysis of Oral Appliance Therapy as a standalone therapy for mild to moderate and some severe cases shows not only efficacy but as a viable alternative to conventional CPAP therapy when patients are intolerant. Evidence will be presented on Oral Appliance Therapy and its uses, as well as novel connection with bruxism and TMD. I am part of a multicenter observational study with over 1200 subjects showing strong correlation between internal derangement of the TM joints and OSA. The ability of the dental practitioner to aid in diagnosis as well as to treat carefully a serious medical condition will be discussed, the need for more dentists adequately aiding their medical colleagues in the field sleep dentistry cannot be overstated.

elleboltontmjandsleep@yahoo.com

Autotransplanted premolars: Possibilities and long-term evaluation

H U Paulsen and O Schwartz
University Hospital of Copenhagen, Denmark

Objective: The aim of this study was to present the topic, possibilities and long-term evaluation of survival and failures of autotransplanted premolars, followed more than 30 years.

Materials & Methods: This study investigated a consecutive group of one hundred patients treated with autotransplantation caused tooth loss, hypodontia and ectopic tooth position. All patients (9.2-14.4 years, mean 12.8), 53 boys and 47 girls, had one-rooted premolars transplanted from one region to another. Totally 118 premolars were transplanted in root stages with an open apex wider than 1 mm. Primary healing and follow-up were tested using a Siemens electrometric pulp tester to detect pulpal reinnervation and standardized radiographs to test transplant healing and root development generally. Assessments were carried out at 1, 4, 8, 12 and 24 weeks and thereafter yearly after transplantation. Tooth eruption and root development was evaluated using a color coding technic, developed at the Karolinska Institute, Stockholm. Transplants were moved or rotated orthodontically 3-9 months after transplantation.

Results: Complicated problems were moved to other regions or replaced, easier to solve orthodontically. Most transplanted premolars showed normal tooth eruption, compared with contra laterals. Transplants induced tooth eruption and bone induction. Transplants erupted before visible root formation and before visible alveolar bone formation. Furthermore, marginal gingiva was transferred with both papillae. It was found successes of 91.5% and failures of 8.5% for all transplants. Premolars transplanted as maxillary incisors had a higher incidence of failures (15%) than premolars transplanted to the mandibular premolar regions (7.6%).

Conclusion: Marginal gingiva was transferred with both papillae. Transplantation induced tooth eruption and bone induction. Transplantation of one-rooted premolars carried out by a trained oral surgeon had a long-term survival of 91.5%. The method can therefore be taken into account in the orthodontic treatment planning.

hpausen@webspeed.dk