Sleep apnea syndrome

Work with other health-care providers for solutions

by Julie Bencosme, RDH, MA, and Sandra Castellanos, RDH, MA

Have you ever had a patient fall asleep and snore loudly in the dental chair while you are scaling? You probably think that you are so gentle that the patient fell asleep. Think again. Perhaps the patient does not know that he or she may have a condition know as sleep apnea syndrome.

Sleep apnea syndrome (SAS) is a sleeping disorder marked by repetitive episodes of cessation of breathing, 10 seconds or longer, during sleep. During this time, the individual's oxygen level drops, resulting in hypoxemia and sleep disruption. SAS was clinically recognized more than 30 years ago, but the health implications of this syndrome were barely known outside of the medical field. However, as more cases were uncovered, attention turned to the impact of SAS on the general health of individuals, such as the increased risk of cardiovascular disease, along with its oral implications such as periodontitis.

Symptoms of sleep apnea syndrome

Sleep apnea occurs in all age groups, both sexes, among all body types, and ethnicities. However, SAS is mostly seen in overweight, middle-aged men, women (especially postmenopausal women), and infants. SAS in infants usually results in sudden infant death syndrome (SIDS).

The most common symptoms of SAS are:

- Fragmented sleep pattern and restless sleep, insomnia, excessive daytime sleepiness, and loud snoring
- Xerostomia (dryness of the mouth from breathing through the mouth and lack of secretion)
- Cognitive and behavior issues such as the inability to pay attention and intellectual performance deterioration, irritability depression, and morning headaches among others

Certain oral anatomical traits, such as the shape of the palate, enlargement of the lateral pharyngeal walls, and mandible and facial profile, can contribute to this disorder. Life style

behaviors such as high use of alcohol, sedatives, or tranquilizers are also risk factors. Additionally, a person who smokes has three times the risk of developing SAS as a nonsmoker.

Dental hygienist's role in treating patients with SAS

Sleep apnea is a chronic condition that requires long-term management (lifestyle changes, mouthpieces, surgery, and/or breathing devices), and a multidisciplinary approach.

Dental personnel have become more involved in SAS during the last 10 years, particularly since it was shown that some patients with SAS could be helped with oral appliances that are currently used to control snoring. Treatment of SAS with an oral appliance requires a multidisciplinary approach involving a sleep physician and a dental practitioner with expertise in the management of sleep disorders.

Sleep apnea often goes undiagnosed. In addition, most people who have sleep apnea do not know they have it because it occurs only during sleep. Many patients visit their dentists more often than they visit their doctors. Therefore, dental hygienists play a critical role in screening their patients for sleep breathing disorders and in the care of patients with SAS.

Some dental concerns of patients with SAS are xerostomia, bruxism, temporomandibular joint (TMJ) disorders, tooth hypersensitivity, and periodontitis, which is due to poor circulation.

Recommendations should be made to the patient with xerostomia. Salivary substitutes should be prescribed in addition to informing the patient on the possible increase of caries due to a decrease in salivary flow. The dentist should properly evaluate TMJ problems, and appropriate referrals should be made. Keep in mind that patients have reported tooth sensitivity after wearing an oral appliance for the treatment of SAS. Therefore, desensitizing agents should be placed during dental hygiene treatment and recommendations should be made as to which OTC desensitizing products can be used at home by the patient.

Recall dental hygiene appointments should be kept at three to four month intervals to arrest the progression of periodontal disease, if present. The dental hygiene treatment plan must be designed with the patient's mental status in mind. The lack of sleep or poor sleep may result in depression and lack of motivation in general. Therefore, afternoon appointments are best due to the fact that the patient

continued on page 115

Julie Bencosme, RDH, MA, and Sandra Castellanos, RDH, MA, are full-time dental hygiene faculty members at Hostos Community College in New York City.

References

- Banabilh SM, Samsudin AR, Suzina AH, Dinsuhaimi S. "Facial Profile Shape, Malocclusion and Palatal Morphology in Malay Obstructive Sleep Apnea Patients." The Angle Orthodontist 80.1 (2010): 37-42. Print.
- Banno K, Kryger MH. "Sleep Apnea: Clinical Investigations in Humans." Sleep Medicine (2007): 400-26. Web.
- Chan ASL, Cistulli PA. "Oral Appliance Treatment of Obstructive Sleep Apnea: An Update." Current Opinion Pulmonary Medicine 16.6 (2009): 591-59. 11 Dec. 209. Web. June 2011. <http://www.medscape.com/viewarticle/710387>.
- Gunaratnam K et al. "Periodontitis and Sleep Apnea." Annals Royal Australia College of Dental Surgery 19 (2008): 48-49. Web.
- Kanday DP, Yacovone M. "Screening for Obstructive Sleep Apnea." Dimensions of Dental Hygiene Apr. 2010: 54-57. Web.
- Kubota Y, Nakayama H, Takada T, Matsuyama N, Sakai K, Yoshizawa H, Nakamata M, Satoh M, Akazawa K, Suzuki E, Gejyo F. "Facial Axis Angle as a Risk Factor for Obstructive Sleep Apnea." Internal Medicine 44.8 (2005): 805-10. Print.
- Findley LJ, Barth JT, Powers DC, Wilhoit SC, Boyd DG, Suratt PM. "Cognitive Impairment in Patients with Obstructive Sleep Apnea and Associated Hypoxemia." American College of Chest Physicians 90 (1986): 686-90. Web\.
- Lavigne G et al. "Sleep Disorders and the Dental Patient." Oral Surgery Oral Medicine Oral Pathology 88 (1999): 257-72. Print.
- Rob WV. "Snoring and Obstructive Sleep Apnea from a Dental Perspective." Journal of the California Dental Association (1988). Print.
- "Sleep Apnea Fact Sheet - Media Information - American Sleep Apnea Association - ASAA." American Sleep Apnea Association. Web. 22 June 2011. <http://www.sleepapnea.org/info/media/fact-sheet.html>.
- "Sleep Apnea." National Heart, Lung and Blood Institute. Web. 22 June 2011. <http://www.nhlbi.nih.gov/health/dci/Diseases SleepApnea/SleepApnea_WhatIs.html>.
- Smith K, Gutkowski S. "Sleep Breathing Disorders." RDH 1 Jan. 2008. Web. June 2011.
- Staff, Mayo Clinic. "Sleep Apnea." Mayo Clinic. Web. 22 June 2011. <http://www.mayoclinic.com/health/sleep-apnea/DS00148>.
- Wilkins EM. Clinical Practice of the Dental Hygienist. 10th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins, 2009. Print.
- Young PT, Gottlieb PE. "Epidemiology of Obstructive Sleep Apnea: A Population Health Perspective." American Journal of Respiratory Critical Care Medicine 165 (2002): 1217-239. Print.

From the Podium

ing life to the fullest while practicing her faith and enjoying her husband and family.

Some famous people who had Parkinson's include cyclist Davis Phinney, Pope John Paul II, evangelist Billy Graham, playwright Eugene O'Neill, former United States Attorney General Janet Reno, and Adolf Hitler. With knowledge and understanding of the signs, symptoms, and treatments, Carla is spreading the word to the dental profession regarding the effects of this degenerative disease, and bringing the voice of hope to those afflicted.

For more information on Carla's program or Parkinson's, contact Dook@scrtc.com.

DiGangi

continued from page 71

determine the health of the biofilm. CariScreen is a quick, painless, chairside test using ATP bioluminescence for the quantification and activity of oral bacterial load. Her work centers on managing pH. Though often thought of only in caries control, biofilm health and pH are key to periodontal health.

Talking with Linda was the capstone of a very interesting journey for Anita. Linda helped Anita to see that lasers are definitely another arrow in her quiver, another option supporting an MI model of care. Anita wants to use them like Linda does as part of a method to help patients attain and keep health.

Anita is thrilled that she has such a wonderful opportunity to work with a practice using lasers. She knows that she must learn as much as possible about lasers and the office philosophy. She is going to seek out a variety of ways to learn. Anita plans to use lasers in clinical practice but not as a stand-alone or be-all process. Anita no longer wants to practice management of disease; she is ready for a new career path — one with a goal of health. She is sure Sally and Bethany will join her on this journey. She can't wait to get going.

Author note: A special thanks to hygienists Bethany Culbert, Sally Solcum, Pat Pine, Jeanne Godette, Cris Duvall, Cindy Quinn, and Lynne Slim for sharing their time and expertise to make this article possible. An extra measure of special thanks goes to Janet Press for her knowledge, assistance, and generosity.

Bencosme & Castellanos

continued from page 77

will be groggy and disoriented in the morning. The use of mouth props is advisable if the patient begins to feel drowsy during treatment.

Snoring is an important sign that a serious medical problem may exist. Dental hygienists can play an important role in the recognition of sleep disorders by adding questions to the standard dental history. Questions such as: Do you snore? Can you breathe through your nose? Do you wake up tired in the morning? Do you become extremely tired or fall asleep during the day?

Similarly, dental hygienists should do a thorough extra- and intraoral examination that includes examination of the pharyngeal airway space, the hypopharyngeal airway space (via the chin press/tongue curl maneuver), the size of the tongue, tonsils, and adenoids, the position of the mandible, the vault of the palate, and the nasal airway. In addition, a doctor may diagnose obstructive sleep apnea through a sleep history and a sleep study, or nocturnal polysomnography.

Treatment of SAS requires a multidisciplinary approach. Dental hygienists should work closely with other health care professionals, including a sleep physician and a dental practitioner with expertise in the management of sleep disorders.

Haute Hygienist

continued from page 94

Let me close by saying that, if you have never been to RDH Under One Roof — an amazing gathering of dental hygienists from all over the United States — you are missing something very special. The energy was high, the camaraderie was infectious, and the courses covered a wide variety of information. UOR consistently delivers quality continuing education that is geared toward hygienists. In just three days, and for one low registration fee that admits you to all of the general sessions, you can earn all the credits you need for license renewal. There are also smaller hands-on workshops available if you prefer a more intimate setting.

This year there were over 100 exhibitors who were all focused on helping you, the hygienist, get great patient results! The food was great and there was even a flash mob. Block off the dates in your appointment book now so you won't have to move patients. Meet me in Las Vegas at the Rio Hotel & Casino, Aug. 1-3, 2012, for next year's RDH Under One Roof! I guarantee you won't be sorry.