Obstructive Sleep Apnea

Obstructive sleep apnea is classified as a sleep breathing disorder, characterized by the cyclic complete or partial obstruction of the upper airway during sleep. This can be characterized by loud chronic snoring, the feeling of choking while sleeping, gasping for air that wakes the person from sleep, and daytime sleepiness. Anatomy is one of the identifying factors in the causation of OSA. The blockage of the airway has been associated with the size and position of the tongue, soft palate, uvula, adenoids, and tonsils.

An estimated 22 million Americans suffer from obstructive sleep apnea and among those nearly 80% have gone undiagnosed.

The gold standard of diagnosing OSA is polysomnography (PSG), which is a multi-parametric test that study's the individuals sleep cycles and stages. This form of testing is expensive and labor intensive; therefore it is not as popular as more simple screening methods that can be done by the dentist and dental hygienist to detect OSA. The American Academy of Sleep Medicine recognizes clinical tools that include questionnaires and prediction algorithms to be used for recognition of signs and symptoms associated with OSA. These include the STOP-BANG questionnaire that assesses a person’s risk of having OSA, the Epworth Sleepiness Scale that questions the rate of a patient’s probability of falling asleep in different scenarios. And lastly, The Mallampati Classification that is based on what is seen clinically in the pharyngeal soft tissues upon protrusion of the tongue. The most common form of treatment has been recognized as the continuous positive airway pressure (CPAP) device. Studies have showed the CPAP has been successful in mitigating the symptoms associated with OSA however, patient compliance with the device is low. Oral appliances such as mandibular advancement devices have been used as an alternative OSA treatment modality which work to increase the upper away dimension by positioning the mandible forward and creating a protrusion effect on the tongue. Sleep is essential to maintaining our bodies overall health. Inadequate amounts of sleep affect the body's’ immunological functions and mental performance. Diagnosis and treatment of OSA can be critical in the prevention and reduction of systemic diseases. OSA creates a higher risk for cardiovascular disease, hypertension, diabetes, stroke, and impaired mental state. An increase in diagnosis will therefore create a positive impact in patients overall quality of life.
Abstract

Dental hygienists play an important role in the oral health of patients. Clinical knowledge and skills obtained through an extensive two-year curriculum provide dental hygienists the ability to recognize and prevent diseases associated with the oral cavity. There is a need for expansion in the recognition of obstructive sleep apnea (OSA). With implementation of training and the use of tools for measuring risk associated with this sleep breathing disorder, hygienists have the ability to increase the diagnosis of OSA by working interprofessionally with specialists.

References


Image References:

