Royal Australasian College of Dental Surgeons
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SA/NT RACDS Regional Committee

Virtual Scientific Webinar Series 2022

The general dentist in comprehensive dental care

SURGERY IN THE MANAGEMENT OF SLEEP APNOEA

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Abstract

Obstructive Sleep Apnoea (OSA) is a prevalent disorder and a major health concern that causes snoring, disturbed sleep, and daytime somnolence. These symptoms may result in significant morbidity and mortality and are likely contributors to cardiovascular mortality and traffic accidents. If left untreated OSA has a morbidity and mortality rate as high as 37%.

OSA is characterized by repetitive upper airway obstruction during sleep, usually associated with a reduction in blood oxygen saturation, which then leads on to the other problems.

The airway extends from the back of the nose to the larynx and as a result there are severalareas which can contribute to OSA. These include the Nose and nasal airway and the Pharynx, which includes the Nasal pharynx, Oral pharynx, and the Laryngopharynx. Other important structures are also involved such as the position of the soft plate and tongue.

There have been several treatments suggested for OSA including the modification of risk factors, non-surgical treatments such as continuous positive airway pressure (CPAP) devices,mandibular advancement splints and surgery. All of these are aimed at controlling pharyngeal or airway collapse during sleep, either by artificially supporting the airway with Positive pressure or by changing the soft or hard tissue structures of the maxillofacial complex.

This lecture aims to discuss the anatomy of the posterior pharyngeal airway and to consider the various surgical options for the treatment of OSA including the use of maxillary, mandibular and chin advancement surgery.