Snoring and the dentist’s role

Neel Kothari discusses ways to help patients with snoring issues

Whilst dentists most commonly treat conditions related to dental diseases, we are also in an ideal position to screen for and treat a range of sleep related breathing disorders, such as snoring and mild obstructive sleep apnoea. Whilst many of our patients are able to adapt to these conditions in the milder forms, for others these sleep related breathing disorders are a source of great distress and in reality may have more serious medical and social implications, both for the person who snores and/or for the sleeping partner.

Snoring and obstructive sleep apnoea are chronic conditions termed “sleep related breathing disorders”. Snoring is primarily caused by restricted air flow as we breathe. In a small number of cases the restriction occurs in the nose or as a result of an enlarged uvula, but more commonly snoring comes from the back of the throat in the area known as the oro pharynx or hypo pharynx.

During sleep the tongue drops back and the muscles below the jaw relax. This leads to a restriction of air flow. As the air passes through the smaller aperture its velocity increases and the soft tissues vibrate, giving rise to the snoring sound. The snorer has to work extra hard to overcome the air resistance, often depriving the individual of vital oxygen. This places a strain on the respiratory and cardiovascular systems.

In the case of obstructive sleep apnoea, the airway is temporarily cut off with total collapse of the tissues. Breathing momentarily stops. The carbon dioxide levels rise and the oxygen levels fall until the body’s natural emergency recovery kicks in, the pulse quickens and with a gasp the breathing recommences. This cycle of events is often described by the sleeping partner as: “the breathing stops and there are terrible pauses and delays followed by a choking gasping sound. This cycle is repeated throughout the night.” To the sleeping partner it can be most distressing, noisy and alarming. Few can tolerate this and often in desperation retire to another room. For the sufferer they may temporally wake up, regain their breath and then go back to sleep.

Sleepwell - The Most Clinically Proven MAS

The role of MAS therapy in the management of snoring is widely recognised (SGH guidelines, 2003).

MAS therapy prevents the lower jaw from dropping back during sleep allowing for a more patent airway.

Sleepwell - The Most Clinically Proven MAS appliance:

- The gold standard MAS for Snoring and mild - moderate OSA1
- Designed to maximize comfort & retention
- Fully adjustable by the patient
- Two piece appliance allowing lateral movement
- Independently and rigorously tested in its clinical effectiveness and patient acceptability was over 98%1

1 Barnes et al., 2004 Am J Crit Care Med

Dr Simon Ash, consultant orthodontist at Whipps Cross University Hospital has considerable experience working within a multidisciplinary team helping patients with sleep related...
breathing disorders and says: “We all know that a disturbed night's sleep is very debilitating. The unfortunate patient may report poor sleep quality being continuously drowsy and tired and all of these symptoms should sound alarm bells to the dentist. Guides to diagnosis include looking for factors that make the condition worse such as weight gain, lying on the back during sleep and the taking of muscle relaxants which includes alcohol. Factors that give relief to the symptoms such as weight loss, avoidance of alcohol and postural changes in sleeping position will not only help in treatment but also support the diagnosis. A sleep study undertaken by the chest physicians is undoubtedly the conclusive acid test.”

Dr Ash is managing one of obstructive sleep apnoea consisting of a multi-disciplinary team ranging from fields including chest medicine, ENT and Orthodontics or a dentist with appropriate training and skills. Several methods of treatment are available, most importantly changes in life style, less alcohol, weight loss and increased exercise; however Dr Ash believes that surgery, such as laser assisted uvulopalatoplasty should be the last resort, as it may lead to scarring, restricted space and is generally excruciatingly painful over the weeks in the recovery period.

Dr Ash says: “We must be careful to ensure that dentists work with the medical physicians and within their limits, thus whilst dentists should screen patients and ask two very simple questions, ie “do you snore” and “do you feel sleepy and drowsy during the day” we are really not the best health care professionals to actually diagnose sleep apnoea. Remember there is Obstructive sleep apnoea and Central sleep apnoea and perhaps even other variants. If there is pathology causing an obstruction in the airway, dentists would not be best placed to diagnose this.”

Of the non-surgical approaches, the Continuous Positive Air Pressure (CPAP) appliances are the gold standard, normally prescribed by the chest physicians. These devices consist of a close fitting face mask covering the mouth and nose, connected by a flexible hose to an air pump which delivers air under a set pressure. This device forces air through the restricted airway during sleep. Whilst CPAP is effective, the discomfort and inconvenience it causes to the patient mean that many find CPAP to be intolerable and prefer to suffer the consequences than wear the mask.

The most effective alternative or complementary treatment to CPAP is treatment using mandibular advancement dental appliances. These appliances work by holding the jaw forward in the recovery position during sleep and it is here where dentists with appropriate training are ideally placed to assist our specialist colleagues in the management of these conditions. In the next article I will be looking in more detail about some of the options that are used to treat snoring, such as mandibular advancement splints, how they work and what options are currently on the market! 