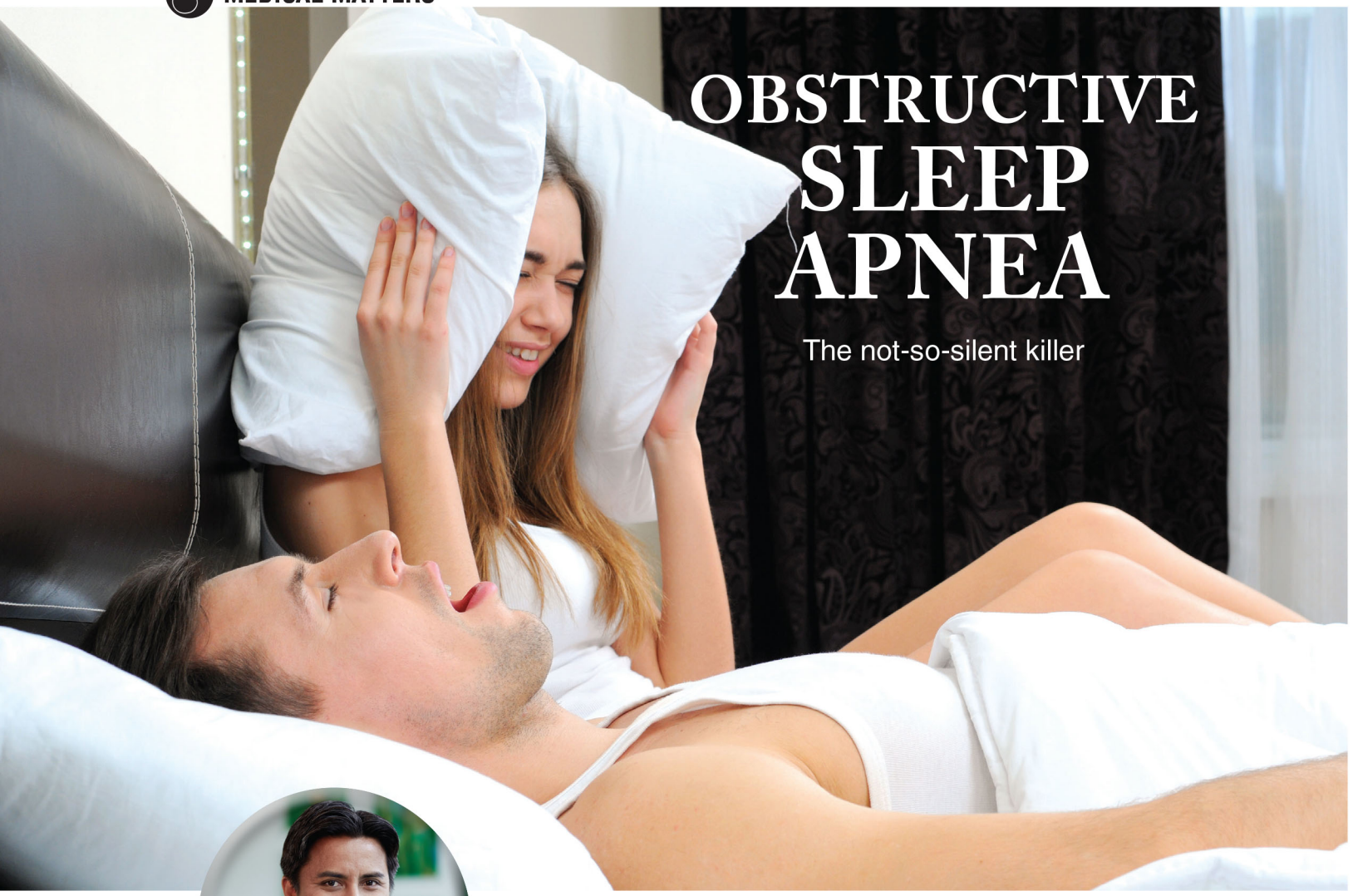

OBSTRUCTIVE SLEEP APNEA

The not-so-silent killer

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Snoring is a familiar experience afflicting both sufferers and their sleep partners (sometimes even beyond the bedroom!) and affects all of us at some point in our lives. While most see it as merely a social nuisance, which in itself can be a significant problem, there is a more sinister and dangerous condition linked to snoring.

Obstructive Sleep Apnea (OSA) is a condition where a sufferer stops breathing after a period of snoring due to the collapse of soft tissues in the upper airway, particularly in the oral cavity, throat and nose. This cessation of breathing is punctuated by a moment of arousal before the cycle of snoring and "choking" repeats itself. Throughout these events, the patient is not aware, but his or her partner is the one who would note such episodes.

SO WHAT'S THE BIG DEAL WITH OSA?

OSA is a serious medical condition which needs urgent attention and treatment. The repeated episodes of cessation of breathing, especially if left untreated, causes strain to the heart and lungs as well as denying the brain and body the sufficient oxygen and rest it needs. It can lead to early onset of hypertension and diabetes which then leads to heart disease and stroke. For men, OSA can also cause sexual dysfunction and impotence.

OSA too results in poor quality of sleep as sufferers rarely achieve deep sleep from the repeated arousals which causes tiredness and daytime sleepiness. This leads to poor work performance, mood swings, emotional irritation and increases the likelihood of motor vehicle accidents. The sleep disturbance snoring can put strain on bed partners relationship.

WHAT ARE THE SYMPTOMS OF OSA?

Apart from loud snoring, sleepiness and emotional issues highlighted earlier, patients often wake up at night to urinate. This is because the "lightness" of their sleep makes patients aware of their bladder contents during sleep which a non-OSA sufferer otherwise would not have. They too often complain of morning headaches, dry mouth and sore throat.

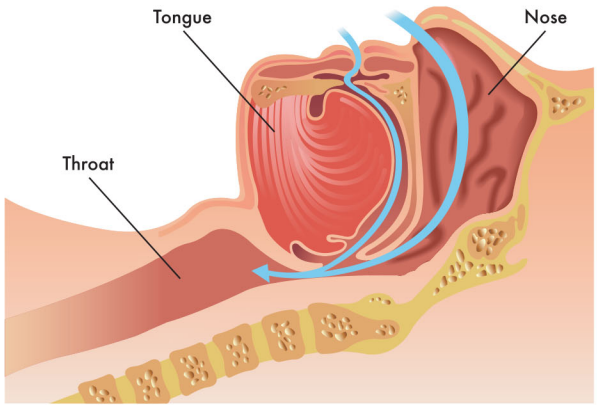
HOW IS OSA DIAGNOSED?

A sleep study or polysomnography is performed to confirm and diagnose OSA. It can be done in a hospital or, ideally, in the comfort of the patient's bedroom as the test requires a minimum of six hours' sleep. The Apnea-Hypopnea Index (AHI) is the key result from the sleep study which denotes the number of times one stops breathing (apnea) and experiences partial airway blockage (hypopnea) in an hour of sleep. An AHI of 5 or less is considered normal or insignificant; 5-15 mild OSA; 15-30 moderate OSA and 30 or more severe OSA.

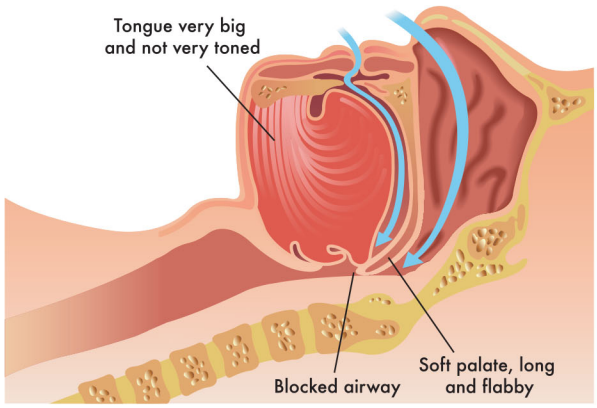
OSA is associated with a number of factors. Chief among them are obesity and craniofacial abnormalities such as a small or receding jaw.

ASSESSMENT

When a patient with OSA visits his or her doctor (usually an Ear, Nose and Throat Surgeon), a general physical examination is conducted particularly concentrating on the head and neck region. Things that a doctor will look for include obesity (measurement of Body Mass Index (BMI)), large neck circumference, teeth malocclusion, craniofacial anomalies, oral and nasal cavity obstructing structures such as large tonsils or nasal polyps and noisy breathing or stertor. In some patients with very severe OSA, their sleepiness is so pronounced that they may fall asleep during the consult! The doctor may perform an endoscopic examination called the Muller's Manoeuvre using a flexible telescope to assess soft tissue collapse at various points in the nose and throat region.



Normal breathing during sleep



Obstructive sleep apnea

WHAT ARE THE TREATMENT OPTIONS?

There is no one-fits-all treatment in OSA as the best treatment plan depends on the individual patient. In general, treatment of OSA can either be in the form of a Continuous Positive Airway Pressure (CPAP) or surgery. CPAP is a machine that forces air into the airway via a facemask, overcoming any physical airway obstruction, during sleep, therefore, delivering the necessary oxygen to the body. This is still considered the "Gold Standard" in treating OSA.

For a patient with obvious obstructive features in the airway like a broad soft palate, large tonsils or long uvula, surgery would be an option. This may include tonsillectomy, Cautery Assisted Palate Stiffening Operation (CAPSO), nasal surgery or even craniofacial surgery depending on the source of the problem. The effectiveness of surgery in OSA would be less in obese patients. A patient who is extremely obese (BMI of more than 40) will need to lose a significant amount of weight before any surgery could be considered. This can be done via strict diet on the advice of a dietician or bariatric surgery such as gastric banding or stapling. While undergoing such procedure and awaiting the desired results, a patient is usually put on CPAP to treat the sleep apnea before repeat assessment is done at a later time.

CONCLUSION

Obstructive Sleep Apnea is a lot more common than most people realise, as a lot of the time it is just passed off as a "snoring problem." This condition is a lot more serious than it seems and needs urgent attention. Various treatment options are available, and new ones are being regularly introduced, but treatment should be tailored to the individual patient. Hence, an ENT Surgeon should always be consulted in such cases. IM