

SNORING & OBSTRUCTIVE SLEEP APNOEA (OSA)

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Snoring is common in the general population. It's now estimated that approximately 20% of men and 5% of women aged 30–35 snore and by age 60 years, 60% of men and 40% of women are habitual snorers.

Obstructive sleep apnoea (OSA) is cessation (apnoea) or periodic reduction in airflow (hypopnoea) during sleep due to airway obstruction. It is estimated that in the general population, 4% of males and 2% of females (aged 30–60) suffer from OSA. In the paediatric population, prevalence of obstructive sleep apnoea (OSA) is 3% (aged 0–15). It is well established that the risk factors for adult OSA's include obesity (BMI>30), male gender (twice as common), Epworth Sleep Score >12, collar size, mandibular hypoplasia (retronathia), hypothyroidism, nasal obstruction, evening alcohol consumption and cigarette smoking. Adeno-tonsillar hypertrophy is the commonest cause for paediatric OSA.

Diagnosis

Patients and their partners usually give a good history of snoring and obstructive events. Some of the classic symptoms and signs include OSA, loud snoring with apnoeas, excessive day time sleepiness, abnormal leg, body movements at night, obesity, high blood pressure, morning headaches, sexual impotence, hyperactivity and anti social behaviour (children).

All patients will need a thorough examination of the upper airway including nasendoscopy.

Approximately 35% of habitual snorers have OSA. It is difficult to identify the patient with simple snoring vs OSA or assess its severity by history and examination alone. However, Epworth Sleepiness score >12, BMI>30, neck collar size are additional information which may indicate patient

has OSA. The gold standard in investigation is a diagnostic polysomnography (PSG). Several types of sleep studies exist but ambulatory monitoring of oxygen saturation, heart rate and nasal airflow can be a useful screening tool.

Treatment

Snoring – There are several non-medical, medical and surgical options available. There are over 500 patented products available in the market both as drugs and devices. The popular ones include nostril expanders, nose dilators, Mandibular advancement splints (MAS) that pull the mandible forward and nasal sprays.

Surgical treatment of anatomical obstruction is often beneficial. Surgery for deviated septum, polyposis, turbinate hypertrophy, tonsils, adenoids and large tongue with redundant soft palate and uvula is helpful in selected patients

OSAs – OSA is difficult to treat as the cause of obstruction is multi-factorial. It is well accepted that weight reduction and increased exercise improve muscle tone and reduce OSAs.

Continuous Positive Airway Pressure (CPAP) opens the obstructed airway. It can improve symptoms dramatically, however, patient tolerability to this device is less than 50%.

Surgical procedures can be performed to enlarge the airway and reduce obstruction. Surgical treatments to treat OSA include mandibular and/or maxillary advancement, tongue base advancement/reduction/tightening and palatal shortening or reconstruction.

In severe cases of OSA tracheostomy is used to bypass the upper airway. In children, adenotonsillectomy alone is curative in 95% of the cases.