Sleep Nasendoscopy in Management of Snoring

Manzoor A. Latoo
Zafarullah Beigh
Omar Mohammad Shafi
Rafiq Ahmad Pampori

Introduction; snoring is the production of sound by the upper aero digestive tract during sleep. In sleep nasendoscopy sedation is administered by anaesthesiologist in a fully equipped anaesthetic room using propofol, once snoring began, flexible nasendoscope was introduced transnasally. The anatomical level of pharyngeal collapse and the sites of snoring noise generation is recorded.

Material and Method; 37 patients who were admitted in ENT department for some other unrelated surgery under general anesthesia, in these patients history of snoring was taken and sleep nasendoscopy was done after proper written consent. Result and conclusion; It was found that 15 (88%) patients out of 17 patients who gave history of snoring produced snoring due to propofol sedation. Patients who produced snoring due to propofol sedation, it was found that majority of patients (47 %) had sleep nasendoscopy Grade 2B ,sleep nasendoscopy Grade 3 i.e. tongue base level obstruction was found in 6 % patients only.

There are many methods used for determining site of snoring. Mullers maneuver, sleep nasendoscopy, sleep MRI etc. in This study we evaluate role of sleep nasendoscopy in determining site of snoring in patients who gave history of snoring.

Material and Method; This prospective study was conducted first time in the department of Otorhinolaryngology Head and Neck Surgery, Government Medical College and Associated SMHS Hospital Srinagar;this study includes 37 patients who were admitted in ENT department for some other unrelated surgery under general anesthesia in ENT operation Theatre;history of snoring was taken from patients and his/her bed partner and in these patients sleep nasendoscopy was done after proper written consent.

Sleep nasendoscopy was done after Anesthetist start anesthetizing these patients with propofol in dose of 15mg/kg body weight, this doze induces sleep in patient and we observe if patient starts snoring, as soon as patient starts snoring, flexible nosopharyngoscope was guided through one of the nostril and site from which snoring sound is produced was noted down.

Results;
Snoring may have several other side effects. Intense flutter of the upper airway structures may cause vibratory trauma, resulting in early inflammation and permanent damage of the pharyngeal tissues and adjacent vessels. To overcome increased upper airway resistance, snorers significantly increase inspiratory muscle effort, as a consequence of which nadir intrathoracic pressure may double or triple. Excessive negative intrathoracic pressure increases cardiac afterload by increasing myocardial transmural pressure and may facilitate gastro-esophageal reflux.

Upper airway surgery is an important treatment option for patients with snoring, particularly for those who have failed or cannot tolerate positive airway pressure therapy. Surgery aims to reduce anatomical upper airway obstruction in the nose, oropharynx, and hypopharynx. Upper airway surgery for snoring is not excisional but is reconstructive. The primary goal is to modify tissues and alter structures to improve and restore upper airway function. Surgeries for snoring could be divided into techniques with and without resection. The resection techniques are uvulopalatopharyngoplasty (UPPP), laser-assisted uvulopalatoplasty (LAUP), Z-Palatoplasty and resection of soft palate by using radiofrequency, septoplasty etc. Techniques without resection are radiofrequency volume reduction of soft palate (RFVR), injection scleroplasty, Sling Snorplasty, Modified Sling Snorplasty and palatal implant.

Sleep nasendoscopy is useful method of finding the site of upper airway obstruction and cause of snoring and accordingly appropriate surgical procedure to reconstruct that anatomical site can be done.

Gary Mckee (2003) done prospective cohort study on 54 snoring patients in which sleep nasendoscopy was done before laser assisted uvulopalatoplasty, this study showed that Grade 2B Sleep nasendoscopy grade was most common grade of SNE and 10 %of Snorers fail to produce snoring due to sedation. Results of our study were in accordance with this study.

REFERENCES