

Nasopharyngeal Airway as a Routine Airway Maintaining (Preserving) Device in the Post Operative Period - A Few Relevant Points

Dr. K. Haritha¹, Dr. C. G. Raghuram², Dr. R. Kondareddy³

¹Post Graduate, Department of Anesthesiology and Critical Care, Kurnool Medical College and GGH

²Professor and Head of the Department (in-charge), Department of Anesthesiology and Critical Care, Kurnool Medical College and GGH

³Associate Professor, Department of Anesthesiology and Critical Care, Kurnool Medical College and GGH

Abstract: *Nasopharyngeal airway is one of the least used devices by the anesthesiologists in the routine anesthesia care during the operative period as well as the post operative period. In fact, if used judiciously and properly, it can be one of the most acceptable devices for the patient in ensuring a stable and dependable airway in the post operative period. The present article discusses a few measures which contribute to the effective and regular use of nasopharyngeal airway in the immediate post operative period to prevent an upper airway obstruction. Such a measure will be immensely useful in patients who are obese and have history of obstructive sleep apnea.*

Keywords: upper airway obstruction, obstructive sleep apnea, nasopharyngeal airway, nasal decongestion

1. Measures to improve the acceptability of a nasopharyngeal airway

1) Decongestion of the nose is a must before inserting a nasopharyngeal airway. It can be achieved by starting the decongestant nasal drops at least 48hrs before surgery. The best decongestant drop is a combination of xylometazoline/oxymetazoline with sorbitol. Xylometazoline/Oxymetazoline is a nasal mucosal decongestant and shrinks the nasal mucosa and makes the nasal pathway more roomy.

Sorbitol is a moisturizer of the nasal pathway.

After all, in any nasal mucosal decongestion, nose should be moist and not dry which is what happens if one uses only oxymetazoline/xylometazoline.

Nose is the main humidifying organ of respiratory gases and should never lose its moisture in the event of nasal mucosal decongestion.

2) A ribbon gauze soaked in a solution of lignocaine with 1:2, 00, 000 adrenaline or 1:80, 000 adrenaline is used to pack the nasal pathway before insertion of nasopharyngeal airway. This will reduce the risk of epistaxis and also desensitize the nasal mucosa so that the patient can accept a nasopharyngeal airway even in a conscious condition.

3) Lubrication of the outer surface of the nasopharyngeal airway also helps in easy insertion of the nasopharyngeal airway, either before induction or after induction.

4) Spraying the posterior pharyngeal wall with or without the laryngoscope before induction and endotracheal intubation and again at the end of anaesthesia helps in increasing the acceptability of the nasopharyngeal airway in the pre-operative as well as post operative period and also minimize the hemodynamic fluctuations by effective suppression of

the gag reflex. 10% Lignocaine spray with a long nozzle can be easily sprayed on to the back of the mouth behind the tongue by asking the patient to widely open the mouth.

Ideal Location of Nasopharyngeal Airway

Ideal location of a nasopharyngeal airway is such that the tip or the bevel of nasopharyngeal airway should be below the level of uvula of the soft palate and above the level of epiglottis and breath sounds should be well audible or visible and appreciable by the anesthetist.

It should never be below the level of epiglottis in which case it will be an esophageal airway and will not contribute in any way to the maintenance of an upper airway.

On any given day, a nasopharyngeal airway is more acceptable as an airway maintenance device than an oropharyngeal airway as it is least likely to migrate and fixed to an immobile structure like the nose.

2. Take Home Message

Nasopharyngeal airway should be more used than oropharyngeal airway in all surgeries under General Anesthesia with or without endotracheal anesthesia.

It should be fixed in such a way that its bevel should be seen behind the tongue in the posterior pharynx well below the uvula and above the epiglottis and the position confirmed by direct laryngoscope.

References

[1] Okuno K, Ono Minagi H, Ikai K, Matsumura Ai E, Takai E, Fukatsu H, Uchida Y, Sakai T, The efficacy of nasal airway stent (Nastent) on obstructive sleep apnoea and prediction of treatment outcomes. Journal of oral rehabilitation. 2018 Oct 3 [PubMed PMID: 30281824]

Volume 9 Issue 7, July 2020

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

- [2] R. Kumar, C. Guilleminault, V. Certal, D. Li, R. Capasso, and M. Camacho, "Nasopharyngeal airway stenting devices for obstructive sleep apnoea: a systematic review and meta-analysis, " *Journal of Laryngology and Otology*, vol. 129, pp. 2–10, 2015.
- [3] Spector ME, Pepper JP, Sullivan S, Marentette L, McKean E, Nasopharyngeal airway to prevent tension pneumocephalus after open resection of anterior skull base tumors. *Ear, nose,* [PubMed PMID: 27929605]

Author Profile

Dr. C. G. Raghuram, M.D., Professor and Head of the Department (in-charge), Department of Anesthesiology and Critical Care, Kurnool Medical College and Government General Hospital, Kurnool, Andhra Pradesh.

Dr. R. Kondareddy, M.D., Associate Professor, Department of Anesthesiology and Critical Care, Kurnool Medical College and Government General Hospital, Kurnool, Andhra Pradesh.

Dr. K. Haritha, Post Graduate, Department of Anesthesiology and Critical Care, Kurnool Medical College and Government General Hospital, Kurnool, Andhra Pradesh.