

A Simple Method of Topicalisation to Facilitate Awake Fiberoptic Nasotracheal Intubation: Experience at a Tertiary Care Hospital

Uyanık Fiberoptik Nazotrakeal Entübasyonu Kolaylaştırmak İçin Basit Bir Topikalizasyon Yöntemi: Üçüncü Basamak Bir Hastanedeki Deneyim

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Dear Editor,

Awake fiberoptic intubation (AFOI) remains the gold standard technique for securing difficult airways of patients. However, stimulation of the airway structures in an awake patient leads to undesirable autonomic stimulation, and therefore, adequate patient preparation is necessary to ensure the ease and success of any awake intubation procedure. Sedation of a patient with a truly difficult airway is fraught with dangers of oversedation and airway obstruction. Hence, topicalisation of the airway with local anaesthetics remains the mainstay of the success of any awake intubation technique. However, local anaesthesia (LA) of the airway itself may lead to complications such as upper airway obstruction, aspiration of gastric contents or LA toxicity. The literature is flooded with different techniques of topicalisation of the airway, and many extensive reviews are available on the same (1-4). Every anaesthesiologist frequently performing AFOI has developed his own technique. The multitude of techniques available are often confusing to beginners or anaesthesiologists who perform AFOI only occasionally, and it is important to identify an easy and effective method of applying local anaesthetics to the airway.

We provide anaesthesia services at a tertiary care hospital in India and are exposed to a wide variety of patients with difficult airways such as extensive burn contractures of the head and neck and advanced malignancies of the upper airway. Being a teaching hospital, we have tried all techniques suggested in the literature, including use of nerve blocks, nebulization of LA, use of atomisers, spraying and gargling of LAs and spray as you go through the working channel of a fiberoptic bronchoscope (SAYGO) and have also used all instruments available to achieve the same.

However, in our opinion, the best technique is the instillation of 2% lignocaine through a “properly placed” nasopharyngeal airway (NPA). This technique is simple, safe, quick and sure, and

it also provides a dense anaesthesia and requires no additional equipment or preparation. For this technique to be successful, it is important to ensure that NPA is ‘properly placed’. After the administration of an antisialagogue and nasal decongestion, the nostril through which fiberoptic intubation is planned is gently dilated, lubricated and anaesthetized by inserting an NPA generously coated with lignocaine jelly (5). The NPA is then fixed at a “proper” distance as measured from the tip of the nose to the tragus of the patient. This measurement usually indicates that the tip of the NPA is lying just above the epiglottis. Boluses of 2 mL of 2% lignocaine are then rapidly instilled through the NPA using a syringe. The first instillation elicits a vigorous cough, which probably deposits macrodroplets of lignocaine onto the supraglottic and paraglottic structures. The second instillation usually elicits a much weaker cough, and by the third or maybe fourth instillation, the patient does not cough and LA is probably aspirated achieving anaesthesia of the glottic and infraglottic structures. The dose of LA does not exceed the upper limit of the recommended dose as it is used in such a targeted manner. Introduction of the fiberoptic bronchoscope (FOB) and visualization of the glottis usually reveals a quiet nonreactive larynx, and AFOI can proceed with no further supplementation of LA, making this technique quick and safe as the period of time for which the airway is unprotected is minimised. Our surgical colleagues are also very satisfied with the speed and success of the procedure. Most other techniques for topicalisation of the airway are time consuming. On the other hand, a NPA is available in every operating room and no special equipment is needed. By this technique, LA of the nasal cavity and supraglottic and glottic structures can be successfully achieved. A significant degree of anaesthesia of the infraglottic structures is also achieved but, if required, LA can be supplemented by instilling 1-2 mL of lignocaine through the working channel of the FOB. More importantly, patients are satisfied and comfortable as the procedure of AFOI is quick and well-tolerated. This technique has proven to be beneficial for all concerned. However, further prospective randomised studies are needed to confirm our results.

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