



CONVERSION OF AN ORAL TO NASAL INTUBATION IN CARCINOMA BUCCAL MUCOSA- A CASE REPORT

Anaesthesiology

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ABSTRACT

A 60 year old male patient diagnosed with carcinoma floor of the mouth was posted for excision with radical neck dissection and free fibula transfer. This was a follow up case of post radiotherapy and post chemotherapy for the same. Airway examination revealed receded mandible and mouth opening of around 3 cms. Nasal intubation was indicated for the surgery.

After induction mask ventilation was confirmed and muscle relaxant given. Upon laryngoscopy it was found to be anterior larynx and intubation attempts with bougie and Airtraq failed.

We intubated orally using iLMA and converted to oral intubation

KEYWORDS

Introduction:

Oral cancer is sixth most common cancer worldwide.¹ In India, it is the most common cancer among males² and is related to tobacco and gutka chewing. Although human papilloma virus has recently been found to be associated with oral cancer development, other factors that are more common in India cannot be neglected. Oral cancer is a component of head and neck cancers. Surgical management is the first choice of treatment for oral cancer.¹ Anaesthetic concerns during surgery are airway difficulty, mainly because of restricted mouth opening and less interincisor gap. Patients exposed to radiation as the primary modality of therapy for oral cancer are likely to have limited neck movements and extension difficulties with restricted mouth opening.³ Considering these factors, proper detailed preoperative evaluation and anaesthesiologists' skill and judgment will definitely reduce morbidity and mortality.

Case report:

A 60 year old male patient diagnosed with carcinoma floor of the mouth was posted for excision with radical neck dissection and free fibula transfer. This was a follow up case of post radiotherapy and post chemotherapy for the same. Airway examination revealed receded mandible and mouth opening of around 3 cms. Nasal intubation was indicated for the surgery. First, we induced the patient with propofol 100mg and supplemented with sevoflurane, confirmed mask ventilation and then examined the larynx with McCoy blade. It was found it to be a very anterior larynx. After administration of the intubation dose of rocuronium, we tried to negotiate the larynx with the gum elastic bougie but failed. Initially, we examined the larynx with McCoy blade after propofol and sevoflurane induction and found to be a very anterior larynx. Even it was difficult to negotiate with bougie even after administration of the relaxant. Airtraq too failed because of too anterior larynx though we were able to see the laryngeal opening. Finally ILMA was introduced and oral intubation was successful. We planned to pass an adequate length of bougie through the nasal route, get it out orally and then pass it through orally placed endotracheal tube and pull the ETT out nasally. First, we dilated the nares after passing 5.0mm and 5.5mm nasopharyngeal airways through the right nares, then passed an available 7.0 sized flexometallic tube thru the same nostril. Through the flexometallic tube, we passed a bougie and with the help of Magills forceps, pulled it out orally and then passed it through the ETT. Then we removed the flexometallic tube. The machine end of bougie was held with an artery forceps to avoid slippage into the nares. Then with adequate precautions, we successfully pulled the bougie along with the machine end of the ETT out through the nares, connected the ett to the ventilatory tubings and checked for ventilation. Since the pilot balloon is in the oral cavity, we place a bougie through the ET tube, removed the ET tube and railroaded a fresh ET tube on the bougie. . Lubrication and

oxygenation with adequate anaesthesia is maintained throughout the procedure. The procedure done is depicted in Figures 1-6.



Intubation done with the help of iLMA with a 7mm ETT



Dilatation of nares with 6mm and 6.5mm Nasopharyngeal airway



Passed a bougie nasally and pulled the tip orally with magills forceps.



The bougie brought out orally is passed through Oral ETT.



After securing the bougie with OETT with a suture, the Et tube is pulled with bougie through the nares.



Bougie is placed again in the tube and tube is exchanged. Ventilation and Oxygenation are adequate.

Figures 1-6: Sequence depicting the method of intubation

Discussion:

This is an alternative arrangement of nasal intubation wherever patients have adequate mouth opening, wherever postoperative ventilation is not required or limited for 2-3 days, where facilities for fiberoptic intubation is not available and other possible indications. Very importantly, this avoids the scar of tracheostomy.

2 reports of conversion oral to nasal intubation without extubating the patient are described where one uses a detachable tube exchanger and the other uses an Airway exchange catheter. In both cases, the

technique described is similar to ours but with minor differences

Conclusion:

Management of difficult airway situations represents one of the most difficult and stressful challenges for the anesthesiologist. In our case, we were able to secure the airway, but to continue with the planned surgery, the tube needed to be changed from oral to nasal. In this circumstance, an appropriate plan of action must be present in case the initial technique fails in securing the airway. The technique we describe permits changing the oral tube to a nasal tube safely.

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