Changing nasal endotracheal tube to opposite nostril in a patient with no mouth opening under general anesthesia, after initial awake fiberoptic intubation

Sir,

A 51-year-old male patient, with carcinoma left buccal mucosa, was posted for wide local excision along with maxillectomy and segmental mandibulectomy. On examination, there was no mouth opening. Neck movements were inadequate. However, both nostrils were equally patent.

Awake fiberoptic nasal intubation was planned for securing the airway. After performing trans-tracheal block and applying lidocaine 2% jelly nasally, a fiberoptic bronchoscope (FOB) was inserted through the right nostril. A 7-mm ID cuffed nasal endotracheal tube (ETT), preloaded on the scope, was railroaded over the scope after entry to trachea and fixed after appearance of end-tidal carbon dioxide (EtCO2) waveform. Anesthesia was induced and muscle relaxant was administered. However, later at surgeon’s request for better access to surgical field before the beginning of surgery, the ETT was required to be changed to the left nostril. This change of the ETT from the right to the left nostril was difficult as the already restricted mouth opening of the paralyzed patient could lead to an aggravated difficult intubation scenario.

Hence, to change the ETT to the other side, a separate 7-mm ID cuffed nasal tube was loaded on the FOB and introduced into the left nostril. While the scope was advanced between the vocal cords by the side of the in-situ ETT in the right side, manual bag ventilation was continued with 100% oxygen. Cuff of the first ETT was deflated and the tracheal entry of FOB was confirmed under vision, following which the first ETT was removed. The preloaded second ETT was advanced over the scope into trachea and its position was confirmed with EtCO2 [Figure 1]. Maintenance of anesthesia was continued as planned till the end of surgery.

In situations where the nasal tube needs to be changed to the other nostril in an already paralyzed patient with known difficult intubation, fiberoptic intubation through the other nostril while ventilating the patient with the in-situ ETT was the safest method which maintained the ventilation, oxygenation and depth of anesthesia. However, the requisites for this approach are that both nostrils should be patent, and that the advancement of the scope into the trachea should not compress it due to inadequate space.

One more method is by using tube exchangers, if on to the same side, and jet ventilation. However, this method requires expertise and can predispose to high failure rates depending on the type of exchanger being used. On the other hand, barotrauma with jet ventilation and tracheobronchial trauma by tube
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exchanger are a possibility and there have been case reports.[3]

The difficult airway can present in the perioperative period even after a seemingly successful intubation, which can end up in an unanticipated difficult intubation setting. Such situations should be handled with utmost caution and in the presence of experienced hands, as loss of airway can lead to perioperative mortality.

Conclusion

In a difficult airway patient following FOB-assisted intubation through one nostril, the side of nasal tube can be changed after induction by passing FOB through the other nostril to trachea by side of existing ETT.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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