

ANAESTHESIA FOR REMOVAL OF MIGRATED TRACHEOSTOMY TUBE

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INTRODUCTION:

Tracheostomy is a life saving procedure and often the tracheostomy tube has to be maintained for long periods of time. In such situations there have been incidents of fracture of parts of the tracheostomy tube and migration of the same into the airways. Removal of these tubes from the large airways always poses unique challenges for the anaesthesiologist.

DISCUSSION:

Difficult airway cart has to be kept ready with smaller size endotracheal tubes. Alternative modes of ventilation has to be kept standby including HFNC (high frequency nasal cannulation) , jet ventilation, needle cricothyroidectomy set, Jackson Rees circuit and Ventilating bronchoscope. In our patient the procedure was done using the apneic ventilation method. In such situations HFNC plays a major role in prolonging the apnea time before patient starts desaturating by means of oxygen insufflation through nostrils. HFNC is also called as THRIVE (Trans-nasal Humidified Rapid-Insufflation Ventilatory Exchange), when it is used in apneic oxygenation for airway surgeries . Continuous oxygenation plays a vital role in anaesthesia for airway surgeries.

This case highlights the importance of difficult airway preparation and the usefulness of HFNC in providing apneic oxygenation in such scenarios. While dealing with such upper airway surgeries the anaesthesiologist must be well prepared with backup options and must be able to use alternative approaches as the situation demands.

CASE SCENARIO:

A 50 year old male patient with history of head injury and prolonged intubation since 2 years , presented with respiratory distress. On examination, the inner part of the tracheostomy tube was found missing .Immediately the neckplate and outer tracheostomy tube was removed and a new tracheostomy tube was put and fixed. HRCT chest was done and a 7cm long structure 6mm in diameter was found in the right bronchus. Patient was planned for bronchoscopic foreign body removal under general anesthesia with apneic oxygenation.

Patient was preoxygenated with 100 % oxygen via tracheostomy tube. HFNC was also connected with 100 % fio2 and flows at 50 litre per minute. Sevoflurane was started and gradually increased to achieve MAC 1. Patient was given Midazolam , Fentanyl, Propofol and Atracurium . The tracheostomy tube was removed and a zero degree bronchoscope was passed through tracheal stoma . The migrated tracheostomy tube was seen in the right bronchus and was pulled out and immediately a new portex tracheostomy tube of size 7.5mm was reinserted.

The procedure was completed in 12 minutes and was uneventful. Throughout the procedure, patient was receiving continuous oxygen insufflation through HFNC Patients saturation was more than 98% all throughout the procedure.



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