

Systematic approach to awake fiberoptic intubation in a post-hemimandibulectomy patient with distorted airway anatomy

Subha Jose Vazhakalayi¹, Kshitija Devendra Bora¹, Sravya Bejugama

Department of Anaesthesia, Dr. D.Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune

ARTICLE HISTORY

Received July 03, 2025

Accepted August 05, 2025

Published August 25, 2025

Dear Editor

We present the case of a 38-year-old man [American Society of Anaesthesiologists (ASA) Physical Status II] scheduled for wide local excision and modified neck dissection with radial artery forearm flap reconstruction. Preoperative airway evaluation revealed significantly limited mouth opening and marked anatomical distortion (Fig. 1), prompting the decision to perform an awake nasotracheal fiberoptic intubation (Plan A). The ENT team was on standby, considering tracheostomy under local anesthesia to secure the airway before administration of general anesthesia as plan B in case of failure of fiberoptic bronchoscope (FOB) intubation.

The patient was counselled and explained about the difficult airway requiring fiberoptic intubation with all the risks and complications, and a written informed consent was taken for the same, along with see on symptom tracheostomy. All standard ASA monitors were applied in the operating room, and 100% oxygen was administered via a face mask. Nasal mucosa was decongested with 0.1% xylometazoline drops. Airway anesthesia was achieved using a combination of 4% nebulized lidocaine (4 ml), 10% lidocaine spray (two puffs in each nostril), and a transtracheal injection of 3 ml 2% lignocaine. Intravenous midazolam (0.02 mg/kg) was given for sedation.

A 5-mm FOB was carefully inserted through the right nostril. The vocal cords were visualized, and an

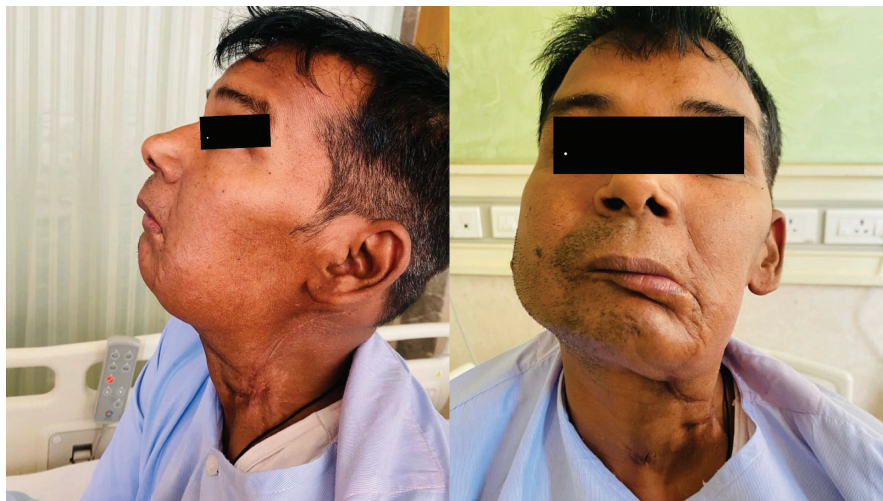


Figure 1. Lateral and front view of patient prior to surgery depicting marked anatomical distortion of face and upper airway post hemi-mandibulectomy.

Contact Kshitija Devendra Bora ✉ kbora0406@gmail.com 📧 Department of Anaesthesia, Dr. D.Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune.

additional 2% lidocaine was administered using the spray-as-you-go technique. The bronchoscope was advanced into the trachea, and a 7.5-mm flexometallic nasotracheal tube was successfully railroaded over it. Correct placement was confirmed with end-tidal CO₂ monitoring and direct FOB visualization.

Following intubation, general anesthesia was induced with intravenous glycopyrrolate (0.2 mg), fentanyl (2 mcg/kg), propofol (2 mg/kg), and vecuronium (0.1 mg/kg), followed by intermittent top-ups. Anesthesia was maintained with 1.5% sevoflurane in a 50:50 air-oxygen mixture. The surgery proceeded without complications, and a tracheostomy was performed at the conclusion. After reversal of neuromuscular blockade, the patient was transitioned to a T-piece delivering oxygen at 2 l/minute and shifted to recovery in stable condition. During subsequent follow-up over the course of approximately 1 month, the PVC tracheostomy tube was replaced with a metallic tracheostomy tube, followed by successful tracheostomy closure.

Managing a difficult airway in patients with prior head and neck surgeries, radiation, or malignancy-related distortion remains a critical anesthetic challenge. Awake nasal fiberoptic intubation is the preferred technique in such cases, enabling spontaneous ventilation and continuous airway visualization [1]. Success hinges on effective topical anesthesia, patient counselling and cooperation, and uninterrupted oxygen delivery [2]. In

our case, comprehensive preparation and a step-wise approach facilitated smooth airway access and minimized risk [3,4]. This case highlights the importance of structured planning in managing complex head and neck airways.

Conflicts of interest

None declared.

Financial support and sponsorship

Nil.

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