

Awake fiber-optic intubation: “Stop and Think” before you act!

Sir,

Awake fiber-optic intubation is considered a safe and effective approach to secure a difficult airway. However, in certain circumstances, a change in planning to invasive method of securing airway is a wise option.

A 52-year-old male patient with complaints of hoarseness of voice for 4 months was diagnosed having malignancy of left

vocal cords, involving anterior commissure. Before scheduling the patient for partial laryngectomy, the patient was given 34 cycles of radiotherapy, following which patient developed difficulty in swallowing.

Preoperative anesthetic evaluation was unremarkable except incidental finding of hypertension that required medication. Airway assessment was normal except a decreased submandibular compliance. A check fiberoptic and endotracheal intubation, if feasible, was considered as a plan for airway management. After adequate preparation using nasal decongestant and topical anesthesia with 4% lignocaine, fiberoptic view showed a grossly edematous epiglottis overhanging the glottis opening with ulcerative

growth on left-sided vocal cord extending to anterior commissure. Further advancement of fiberoptic was assessed as difficult with risk of bleeding from the ulcerative part of vocal cord. Since the patient's postoperative airway management mandated tracheostomy, a decision to secure the airway by preinduction high percutaneous dilatational tracheostomy (PCDT) was taken. Further management of airway was according to the surgical needs, and a tracheostomy tube was placed after creating a new tracheal stoma at the end of surgery.

After securing airway and providing anesthesia, C-Mac D-Blade (Karl Storz Tuttlingem) videolaryngoscope was used to confirm the fiberoptic findings [Figure 1]. The laryngeal tissue removed after surgery was examined retrospectively to reevaluate the decision to choose invasive method of securing airway. These examinations again confirmed fiberoptic findings mentioned earlier. We also tried to negotiate fiberoptic through the removed specimen to assess the size of endotracheal tube which could have passed through the glottis opening of the excised specimen. A 6.0 mm ID cuffed endotracheal tube could be passed through vocal cords with difficulty.

By reporting this case, we want to emphasize importance of decision-making at every step in patients with a potential difficult airway. The growth around the glottis opening makes airway difficult with risk of losing it after sedation or neuromuscular blockade. In such a situation, awake fiber-optic intubation is regarded as a cornerstone of safe anesthetic practice. However, this is also associated with many complications, forcing airway managers to consider its merits and limitations. Certainly, keeping the patient awake and spontaneously breathing will prevent the disastrous consequences "cannot intubate and cannot ventilate." However, complications such as bleeding from the ulcerated tissue and inadequate topical anesthesia can occur and lead to loss of vision during fiberoptic and intubation and/or precipitation of laryngospasm.^[1] This can defeat the purpose of securing airway safely by awake fiberoptic intubation. Moreover, spread of malignant tissue by dissemination of seeding from the damaged malignant tissue cannot be overlooked.^[2]

The invasive methods of securing airway are not preferred due to the presence of scar and stigma associated with tracheostomy. In this patient, decision to secure airway by high placed PCDT was taken as it is quick, safe, and can be easily performed with less discomfort by expert hands. It has been suggested that bronchoscopy-guided PCDT might have a lower incidence of complications compared with PCDT performed without bronchoscopy, but it was not advisable in our patient and moreover, the data on this



Figure 1: C-Mac D-Blade videolaryngoscopic view showing overhanging edematous epiglottis

issue are mixed.^[2] Among intraoperative complications while performing PCDT, premature extubation and bleeding are most concerning. These complications were prevented by an expert team. Furthermore, stigma of presence of scar after surgery was not an issue since patient needed a stoma after total laryngectomy. A rare but deadly late complication is tracheal-innominate fistula. However, this concern is more when either the tracheostomy performed is too low, or cannula is not appropriately chosen.

The securing of airway not only requires knowledge of anatomy and skills but also includes cerebral decision making at the right time. In a recent editorial, the airway management approach of "stop and think" suggested by Difficult Airway Society guidelines has been highlighted.^[3] In this patient, problems associated with fiber-optic intubation were avoided by changing initial plan to invasive method of securing airway. We suggest fiberoptic assessment in patients having growth around glottis opening and "Stop and Think" about consequences before attempting intubation.

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Conflicts of interest

There are no conflicts of interest.

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