LETTER TO THE EDITOR

Utility of ultrasound as a "cognitive aid" for the managemet of awake fibre optic intubation

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Dear Editor, We are writing this letter to highlight the utility of ultrasound as a cognitive aid for awake fiberoptic intubation. Securing the airway and maintaining its patency is a crucial role for anaesthesiologists. Failure to secure the airway can lead to a cascade of complications, including hypoxia, irreversible brain injury, and death. Effective use of available cognitive aids enhances the performance by reducing errors, improving confidence and related outcomes.[1]

Various devices are now in practice to assist in securing difficult airways by providing better visualization of airway anatomy compared to traditional direct laryngoscopy. Among them, awake fiberoptic tracheal intubation has been the gold standard for managing anticipated difficult airways.[2]

We present the case of a young male diagnosed with squamous cell carcinoma of the tongue, planned for elective tracheostomy. The patient had no other known comorbid condition. An airway examination revealed a limited mouth opening. A CT scan indicated a poorly differentiated mass of the tongue with tumour thrombus in the superior vena cava and pulmonary embolus affecting the right main pulmonary artery and its segmental branches. The tumour had also involved nodes in the right supraclavicular region and extended to the right anterior chest wall, causing marked tracheal displacement to the left side as shown in Figure 1.

The anaesthesia team was consulted for airway management before tracheostomy. Due to the extreme deviation of the trachea, it was challenging for the surgeon to perform tracheostomy without securing the airway with an endotracheal tube. Considering the anticipated difficulty, awake fiberoptic intubation was planned, under routine ASA specified monitoring and ENT team on standby in operating room.

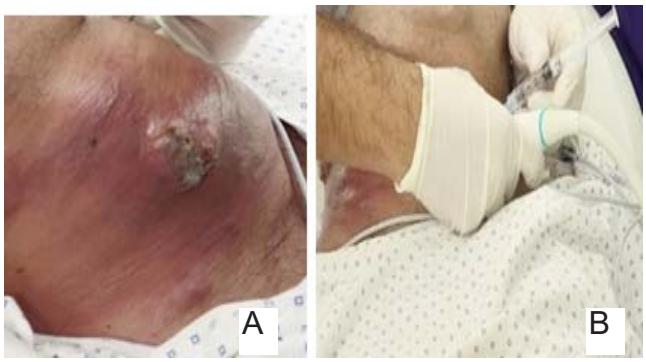

Figure: A: Image showing massive swelling in front of neck with leftward shift
B: Utility if US for trantracheal infiltration of local anesthetic

Local anaesthetic spray was administered via upper airway through nasal cavity and limited oral access. Most important aspect of the procedure was to block the Recurrent Laryngeal Nerve to add comfort while using fibre scope and to add comfort to the procedure.[3] As anatomy of neck was absolutely distorted, Ultrasound guidance was really helpful for locating the tracheal rings, which were shifted to extreme left up to the level of midclavicular line.

A recurrent laryngeal nerve block was performed through a transtracheal approach using ultrasound.This was achieved by injecting 3 mL of 2% lidocaine through the transtracheal approach. An endotracheal tube of 7.0 mm was passed , confirmed with end-tidal carbondioxide and secured.

The case highlights the importance of using ultrasound in recognizing potential anatomical challenges associated with difficult airways. The integration of ultrasound into airway management protocols is logical in terms of providing cognitive aid and better decision making.

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