Anticipated Difficult Airway and Thoracic Surgery: A Conflictive Marriage

We describe the airway management in a 59-year-old female with a history of partial supraglottic laryngectomy and foreign body sensation, scheduled for a left upper lobectomy. Her medical history included current smoker, obesity (Body Mass Index of 31), anxiety disorder, and agoraphobia treated with venlafaxine, as well as a history of transoral laser epiglottectomy for squamous cell carcinoma (T1N0) performed four years ago. A follow-up computed tomography (CT) revealed a 10 mm pulmonary nodule in the apico-posterior segment of the left upper lobe, with no metastases found in positron emission tomography (PET). Consequently, video-assisted thoracic surgery (VATS) left upper lobectomy with lymph node sampling was indicated.

Although the CT only showed post-surgical changes from the previous epiglottectomy without signs of tumor recurrence, in the pre-anaesthetic clinic the patient referred a foreign body sensation and frequent choking. The patient was predicted to be a difficult airway due to her history of laryngeal surgery, 4 cm interdental distance, Mallampati class 2, obesity, and age.

Awake orotracheal intubation was considered as recommended by guidelines,[1] but poor cooperation was anticipated due to the patient's anxiety disorder and agoraphobia. As no face-mask ventilation issues were predicted, intravenous general anesthesia induction was performed. The airway management plan included an initial attempt with a Glidescope® videolaryngoscope to place a double-lumen tube (DLT) if the glottic view and position were optimal; otherwise, a single-lumen tube n° 8.0 was prepared with the aim of placing subsequently a bronchial blocker.

Finally, videolaryngoscopy revealed a good glottic view [Figure 1] enabling a successful intubation with a Mallinckrodt® right sided DLT (n° 35 F). The patient was extubated in the theatre and discharged home two days after.

This case shows the interrelationship that exists between otorhinolaryngological and lung cancers in smoking patients. In individuals with a predicted difficult airway, providing lung isolation with a DLT may be challenging, and awake intubation with bronchoscope and bronchial blocker insertion is the preferred technique.[1] In this patient, the anxiety disorder would have significantly complicated an awake intubation, opting for a videolaryngoscope-based technique. This case exposes a safe DLT intubation with videolaryngoscopy in a patient with a history of laryngeal surgery.

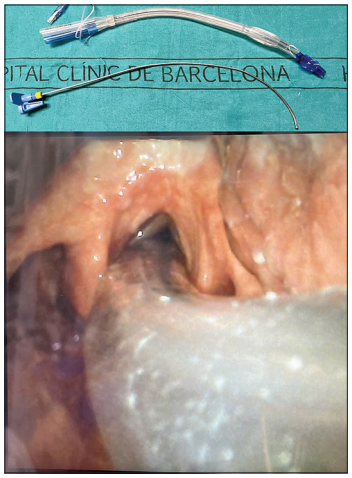

Figure 1: Hyperangulated videolaryngoscope view enabling orotracheal intubation with double lumen tube. The image presents the long specific rigid stylet used and the double lumen tube placed between the vocal cords showing above the glottis the fibrotic tissue after epiglottectomy

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