Awake Fiberoptic Intubation for Airway Management in a Patient with an Ulceroproliferative Mass of the Aryepiglottic Fold Obscuring Glottic Opening

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Abstract : A 45-year-old female, Manju Devi, presented with a 6-month history of progressively changing voice, difficulty breathing for the past month, and worsening dysphagia for the past two weeks, particularly with solids. Direct laryngoscopy revealed an ulceroproliferative mass arising from the left aryepiglottic fold, obscuring the glottic opening. Imaging with contrast-enhanced CT of the neck showed a lobulated, heterogeneous mass in the hypo-pharyngeal region, encroaching into the airway and involving the aryepiglottic fold and pyriform sinus, raising concerns for a malignant lesion. Small reactive lymph nodes were identified in the left submandibular region and along the carotid sheath. Due to the location of the mass near the glottis and the risk of complete airway obstruction, securing the airway was a critical concern. An awake fiberoptic bronchoscopy for endotracheal intubation was chosen as the safest approach. The patient was prepped with local anesthesia to the airway using nebulized 10% lignocaine and 4% lignocaine spray to the oral mucosa. After obtaining informed consent, the patient was positioned supine on the operating table. To facilitate the fiberoptic intubation, the patient's neck was extended, and the head was laterally rotated 30 degrees to the left. This positioning helped optimize the visualization of the glottic opening, which was obscured by the mass. The fiberoptic scope was carefully passed through the oral cavity, past the uvula, and into the laryngeal area. As the scope advanced, the ulceroproliferative mass was observed covering most of the glottis, with only the anterior commissure visible. After further gentle manipulation, including the use of a shoulder roll for additional neck extension and rotation, a clearer view of the anterior two-thirds of the glottis was achieved. A 6.5mm internal diameter endotracheal tube was advanced over the fiberoptic scope and successfully positioned just above the carina. General anesthesia was then induced, and an excision biopsy of the growth was performed. This case underscores the importance of careful preoperative airway evaluation and the role of awake fiberoptic intubation in managing complex airway obstructions. Proper patient positioning, including neck extension and lateral rotation, proved crucial for successful intubation in the presence of a mass obstructing the glottic opening. This case emphasizes the techniques used in the fiberoptic intubation and the careful positioning of the patient, which were critical for the success of the procedure.

Keywords : awake fiberoptic bronchoscopy in laryngeal growth, Difficult intubation in glottic cancer, glottic cancer, difficult airway

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