

Video Laryngoscopy Assisting Anesthesiologist in Diagnosing Undiagnosed Conditions

Presenting Author: Kyle Behrens, BS, Chicago Medical School at Rosalind Franklin University School of Medicine and Science

Co-Author: Richard E. Galgon, MD, MS, University of Wisconsin School of Medicine and Public Health

Introduction: Video laryngoscopy (VL) has become readily available in clinical anesthesia practice, affording a number of benefits, including the ability to provide clear views of the vocal cords and glottic structures. During VL-facilitated tracheal intubation, anesthesiologists have the opportunity to screen the upper airway and glottic structures for abnormalities, contributing more broadly to the overall patient. We report a case where a vallecular cyst/polyp was found while utilizing VL during intubation.

Case Description: A 53 year-old woman with a thyroid nodule was brought to the operating room for a thyroid isthmusectomy that was thought to be causing her chronic cough and hoarseness. During VL-facilitated tracheal intubation, the patient was found to have an abnormality (Figure 1) in her vallecular region, which encroached on the glottis, but did not prevent intubation. The abnormality was captured using the screen shot function of the VL, and later downloaded for viewing and incorporation into her medical records. This was discussed with the surgeon, who referred the patient to otolaryngology for further evaluation. Of note, pre-operative imaging (chest CT and neck ultrasound) only demonstrated the patient's thyroid nodule. The otolaryngologist diagnosed the patient with a benign vallecular mucous retention cyst, and provided voice therapy. At further follow-up, the patient's symptoms of coughing and hoarseness improved.

Discussion: This case demonstrates the opportunity for anesthesiologists to broaden patient care with the use of advanced medical technology. VL has previously been noted to be of pronounced benefit to airway management in the perioperative setting, and recently the idea of utilizing its features to identify undiagnosed vocal cord lesions has been noted.¹⁻⁴ This case illustrates and further emphasizes the expansion of VL's diagnostic ability to facilitate the diagnosis of previously undiagnosed abnormalities of the periglottic structures. A device with screen capture capability is important for facilitating referral care.

References: (1) Montague et al, *Anaesthesia*. 2014; (2) Gordon, *Anaesthesia*. 2014; (3) Sandu R, Higgs A, *Anaesthesia*. 2014; (4) Lomasney et al, *British Journal of Anesthesia*. 2014

