



AB096. SOH23ABS_150. Feasibility and safety of vocal cord analysis in an endocrine surgery service—first Irish experience

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Background: Iatrogenic recurrent laryngeal nerve (RLN) injury is a long-recognized, potentially catastrophic complication of thyroid and parathyroid surgery. Symptoms vary from transient vocal cord dysfunction to life-threatening airway obstruction. Figures for same vary from 10.6% for transient injury to 1.1% for permanent RLN injury. Consequentially, this has become a leading cause of surgical malpractice. Thyroid surgery is performed by both endocrine and otolaryngological surgeons alike, however peri-operative vocal cord analysis (VCA) has typically fallen under the remit of otolaryngology alone. To evaluate the feasibility and safety of VCA conducted by endocrine surgeons on patients undergoing thyroid and parathyroid surgery using single use, disposable flexible fiberoptic rhino-laryngoscopes (AMBUTM).

Methods: Prospective observational study involving data from patients operated between July 2021 and October 2022, in a model four tertiary referral center. Patient demographics, indications for VCA, incidence of RLN injury, complications and readmissions were evaluated.

Results: A total of 96 VCA procedures were performed on 51 patients. Patients had a mean age of 53 years; the majority being female (n=38, 74.5%). Pre-operative VCA was performed on 46 (97.9%) patients on the day of surgery. Post-operative VCA was attempted in 49 cases, with 17 procedures (34.7%) performed on day 0 postoperatively and

32 procedures (65.3%) performed on day 1 postoperatively. There were no procedure specific complications of VCA. Early vocal cord injury was identified in 3 cases (5.9%).

Conclusions: Flexible rhinolaryngoscopy may be safely and effectively performed by endocrine surgeons. Preoperative VCA may be performed on the day of surgery, reducing the number of outpatient visits required by patients. Postoperative VCA can be undertaken successfully during the same hospital admission, confirming normal vocal cord function or allowing early recognition of dysfunction.

Keywords: Vocal cord analysis (VCA); endocrine surgery; recurrent laryngeal nerve (RLN); thyroid & parathyroid; flexible rhinolaryngoscopy

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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