

THE TRUE RATE OF RECURRENT LARYNGEAL NERVE INJURY FOR A HIGH VOLUME ACADEMIC THYROID AND PARATHYROID SURGEON

Noureldine, Salem¹; Tufano, Ralph¹

¹Johns Hopkins University School of Medicine, Baltimore, MD, USA

Background/Purpose: Using voice quality alone has been shown to underestimate the true rate of vocal fold paresis (VFP) after thyroid and parathyroid surgery.

Methods: Between January 2009 and November 2012, all consecutive patients who underwent parathyroidectomy or thyroidectomy with or without central neck dissection by a single surgeon were identified. Each patient underwent preoperative and immediate-postextubation fiber optic laryngoscopy (FOL) to evaluate vocal fold (VF) function.

Results: Overall, 682 patients underwent 567 thyroid and 137 parathyroid procedures with a total of 1,075 nerves at risk. Twenty (2.9%) patients had preoperative VF motion impairment, and 54 (7.9%) had postoperative VF motion impairment on immediate FOL. Three additional patients were later found to have VFP on follow-up. Of the 37 (5.2%) new findings of VFP, 2 were bilateral and 3 were due to intraoperative transection of the RLN, of which only one was iatrogenic. No patient required tracheostomy. Thirty-two (4.7%) patients had transient VFP with complete resolution on an average of 64.1 days (2-300). The remaining 5 (0.7%) were deemed to have unilateral permanent VFP. The rate of VFP was 5.8% in patients undergoing primary thyroid cancer surgery compared with 5.8% in benign disease ($p=0.98$). The rate of VFP was 8.4% in cases performed for retrosternal goiter. VFP occurred in one of the patients undergoing surgery for Graves' disease (2.4%) and in one undergoing parathyroidectomy (0.7%).

Discussion & Conclusion: In our experience, the true rate of VFP after thyroidectomy is comparable to previous reports and for Graves' disease is lower than previously documented. VFP after parathyroidectomy is negligible.