

Editorial

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In Support of Nerve Monitoring During Thyroid Surgery

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Interventions during surgical procedures are hotly debated for many years. Interventions of benefit to patients stand the test of time and become accepted by the surgical community at large after a period of several years. The benefit conferred by the intervention is inversely proportional to the time taken for acceptance by the surgical community. After acceptance by the surgical community the intervention becomes accepted as the standard of care. In Otolaryngology, laryngeal nerve monitoring during thyroid surgery and image guided sinus surgery are two such interventions.

The benefits of Laryngeal Nerve Monitoring (LNM) in thyroid surgery are in the debate stage. As a surgeon who uses LNM in every thyroidectomy and parathyroidectomy over the last eight years, I have greatly benefitted from it. My patient outcomes have improved with regard to nerve function both temporary and permanent. I would like to take this opportunity to write in support of the technique.

The technique is described by Randolph GW, Dralle H, with the International Intraoperative Monitoring Study Group.¹ Largely because of its ease of use and reliability, I have been using an endotracheal tube with surface Electromyography electrodes (EMG-ET), which directly contact the vocal cords.

Dralle has calculated that a randomized controlled trial will need at least 40,000 patients per arm for adequate statistical power and may not be feasible to study these techniques.¹ So, we looked at 119 consecutive thyroidectomies/parathyroidectomies where residents were involved and I was the attending surgeon, to study the incidence of Recurrent Laryngeal Nerve (RLN) paralysis.² One patient developed a permanent vocal fold paralysis (1/119 or 0.84%). Another patient had a vocal fold paresis which recovered in 4 weeks (1/119 or 0.84%). This is an acceptable morbidity rate.

Anatomic variations are seen in the Laryngeal nerves which cannot be predicted pre-operatively.³⁻⁵ LNM aids in these cases. LNM has its pitfalls and a learning curve.⁶ Improper positioning of the EMG-ET can give rise to complications⁷ which are treatable.

We performed a survey of the American Head and Neck Society (AHNS) members and found the following: The response rate was 18%. The most commonly cited reasons for using LNM were medical-legal protection and increased confidence. Younger surgeons were more likely to use LNM.⁸ The results suggest that LNM use has become more widespread and may eventually become routine practice.

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