The Role of Intraoperative Nerve Monitoring (IONM) in Thyroidectomy: Where Do We Stand Today?

Content


OBJECTIVE: Intraoperative nerve monitoring (IONM) gains daily ground, being used during thyroidectomy to help the surgeon identify the recurrent laryngeal nerve (RLN). But its value still remains debatable among endocrine surgeons. In this review article, we aim to present current knowledge on the subject.

DATA SOURCES: The MEDLINE/PubMed database was searched for publications with the medical subject heading “Intraoperative Nerve Monitoring (IONM)” and keywords “thyroidectomy,” “recurrent laryngeal nerve (RLN)” or “vocal cord paresis or vocal cord paralysis (VCP).” The search was conducted both on basis of the MESH tree and as a text search.

STUDY SELECTION/DATA EXTRACTION: We restricted our search to English till July 2012. In this review, we only included 34 articles and abstracts that were available in English.

CONCLUSIONS: RLN IONM adds a functional dimension to surgery that aids, but does not replace, visual identification. For the time being, intraoperative visual identification of the nerve and preoperative and postoperative laryngoscopic assessment of vocal cord function remain the gold standard of RLN management in thyroid surgery. Whether IONM will become a standard of care or not depends on the familiarization of each surgeon with this technique as well as on the publication of studies involving large series of thyroidectomies, where the evaluation of IONM will have significant statistical power.