

## Peer Review File

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### Reviewer A

A very complete and interesting work, well written article  
Answer: Thank you.

### Reviewer B

The presentation of the work is clear, with regards to language and grammar. The title of this paper clearly reflects its content. The abstract sufficiently reflect the content. The introduction presents the purpose of the investigation and is the purpose supported by the pertinent literature. The methods are described sufficiently to allow the study to be repeated by other parties. The use of statistics and treatment of uncertainties is appropriate. The images in this manuscript (including electrophoretic gels and blots) are free from apparent manipulation. The table and figures are well designed and necessary.

My recommendation is to accept this article.

Answer: Thank you.

### Reviewer C

The Clinical Practice Guideline entitled "Chinese guidelines on intraoperative neuromonitoring (IONM) in thyroid and parathyroid surgery (2023 edition)" gathered hundreds of Chinese IONM experts to produce comprehensive guidelines for IONM in laryngeal nerve function protection. Based on previous guidelines and new evidence, the panel issued 42 recommendations. In this current edition, the authors aimed to provide the most complete and clinically significant guide for IONM in thyroid and parathyroid surgery in China.

This guideline effectively organizes everything from basic IONM knowledge to its extended applications. Both the narrative and figure presentations are reader-friendly, enabling surgeons to understand and follow. Here are some comments and content that need minor modification or clarification.

Line 276: Are there any recommended specifications for thyroid cartilage needle electrodes, such as length or insulation? Is exposure of the thyroid cartilage required during needle placement?

**Answer line 276:**

Actually, in many studies, as well as in clinical works, there're mainly two kind of needle electrodes used during IONM, single or double needle electrodes, both of them can obtain satisfied EMG only if with proper placing site and penetration depth. But there's no more impacts with the needle electrodes, such as length or insulation.

If a thyroid cone lobe is present, the cone lobe needs to be dissected in order to expose the thyroid cartilage, but is not necessary in each operation. We have modified our text as advised (see line 282)

Line 512: The original description of EBSLN could be SLN.

**Answer line 512:**

Thank you, we have modified our text as advised (see line 517)

Line 536: Visual identification is usually not necessary when monitoring EBSLN. Is the delivered current limited to 1.0 mA, or can it be stimulated with 1-3 mA as in RLN monitoring? If you change to the range of delivered current, please adjust Table 2 accordingly.

**Answer line 536:**

The Chinese writing committee of this guideline agreed that 1.0mA current should be used for monitoring the external branch of the superior laryngeal nerve to avoid excessive current conduction to the cricothyroid muscle, because this monitoring point is close to the cricothyroid muscle and the surrounding effect muscles.

Line 685: There seems to be an error with "CTM twitch". It is suggested to change to laryngeal muscle twitch.

**Answer line 685:**

Thank you, we have modified our text as advised (see line 691-692)

Line 718: Dislocation of the cricoarytenoid joint is rare and EMG signals would not change. Please verify this description.

**Answer line 718:**

Thank you, we have modified our text as advised (see line 724)

Line 863: Nerve injury should be identified with less amplitude loss; nerve injury exceeding 50% could directly cause VFP, which is not appropriate to call an "early alert."

**Answer line 863:**

Many clinical studies and animal experiments have confirmed that postoperative vocal cord paralysis does not always occur when the amplitude descend to 50% during surgery. At this time, the risk surgical maneuver in the operation is suspended, and the amplitude can be

restored during the operation without causing postoperative VFP. Thank you, we have added the reference here as advised (see line 871)

15. Wu CW, Dionigi G, Sun H, et al. Intraoperative neuromonitoring for the early detection and prevention of RLN traction injury in thyroid surgery: a porcine model. *Surgery* 2014;155:329-39.

Line 868: If it's a thermal injury, is it still necessary to wait for 20-30 minutes? If not, what is the recommended course of action? A waiting time of 20-30 minutes is too long for clinical practice, so it could be reduced to at least 5 minutes. If the authors prefer to wait 20-30 minutes, please provide clear instructions on the safe dissection area and the precautions surgeons can take during this waiting period.

**Answer line 868:**

It cannot be thermal injury, because thermal injury may induce LOS directly. Because there is no valid evidence that any method can accelerate the intraoperative recovery time of neurological function, so we cannot recommend what measures should be taken during the 20-30 minutes during the surgical pause.

- Recognizing that different hospitals may have different environments, the guidelines should clarify whether the steps for administering anesthesia should be performed by a nurse anesthetist or require an anesthesiologist.

**Answer:**

Thank you, we have modified our text as advised (see line 312-313)

- Considering that the primary readers are Chinese thyroid surgeons, it's understandable that many of the references cited in the article are in Chinese. However, as they are not written in English and are not open access, it is not possible to verify the appropriateness of the references.

**Answer:**

Only reference 1-3 were in Chinese, but they are all open access in Chinese database website.