Reviewer’s report

Title: Laryngeal mask airway reduces incidence of post-operative sore throat after thyroid surgery compared with endotracheal tube: a single-blinded randomized controlled trial

Version: 0 Date: 10 Sep 2019

Reviewer: Susanne Sujatta

Reviewer's report:

General Comments:

Thank you for submitting your manuscript to the BMC Anesthesiology and giving me the opportunity to read and critique your article - Laryngeal mask airway reduces incidence of post-operative sore throat after thyroid surgery compared with endotracheal tube - I hope you will find these comments useful in revising your manuscript.

This is a well written article, however I feel you should provide readers with a greater reasoning of the equipoise of why this should be done.

Temporary sore throat and hoarseness up to 72 hours appear to be a low risk in the context of serious vocal cord injury, which could be avoided by using an endotracheal tube with electrode and following monitoring of the recurrent laryngeal nerve to identify and save this nerve during thyroid surgery.

Specific comments:

P5L6 Please specify "definitive identification of recurrent laryngeal nerve" and detection of injury during surgical intervention e.g. by naming the method

P5L48 Please specify "standard digital technique"

P6L1 How much experience in this specific field had the anesthesiologist performing ETT intubation?

P6L16 Train of Four, number of ETT attempts and C/L status would have been interesting at time of ETT insertion to exclude vocal cord injury during intubation via technical failures.

P6L47 Witch method or scale for measurement of "postoperative numbness and hoarseness" was used? Why was no ENT specialist involved?

P7L9-37 First of all thank you for including a power analysis in your paper, but there are a few questions:
Reference 5 shows no incidence of sore throat at the level of 84% after thyroid surgery, therein is no incidence given at all as it is a correspondence letter. Citing reference 8 there would be an incidence about 48% for the use of ETT size 7.0 in female patients and an incidence of 68% overall male and female with any given size of ETT. Citing reference 6 the use of small tubes downsizes the incidence of sore throat from 48% to 22%.

Please check your power analysis in the view of this background. There may be too few patients included if the approximated incidence is below 84%.

Your power analysis states the necessity of 38 patients per group, why including 48?

P9L38 Wrong citation: compare head line of reference 23; reference 8 suggested that the lignocaine may be irritating or damaging to the tracheal mucosa and therefore increases the incidence of sore throat.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Unable to assess

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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