Reviewer's report

Title: The effect of changing the sequence of cuff inflation and device fixation with the LMA-Supreme(R) on device position, ventilatory complications, and airway morbidity: a clinical and fiberscopic study

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Reviewer: Gereon Schaelte

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The effect of changing the sequence of cuff inflation and device fixation with the LMA-Supreme(R) on device position, ventilatory complications, and airway morbidity: a clinical and fiberscopic study

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Bergmann et al. performed a nice study hypothesizing that an inversed sequence of operating a Laryngeal Mask Supreme® (LMAS) after insertion, e.g. fixation first and subsequent cuff inflation may lead to improved seating and might be associated with fewer complications. In a prospective randomized trial a total of 184 patients were assigned to the „conventional“ control group (n=92) or the intervention group receiving LMAS fixation before cuff inflation. The authors assessed LMAS position by leak detection, capnometry, oropharyngeal leak pressure, suprasternal notch test and lube-tube test. LMAS' position was analyzed and digitally documented by fiberscope. Airway morbidity was assessed with a questionnaire. With respect to device malposition, impaired ventilation and glottic narrowing no statistically significant differences could be detected between both groups. However, glottic narrowing was associated with a more severe respiratory impairment in the control group (p=0.04). In the control group airway morbidity more frequently occurred (33% vs 19%; p<0.05).

Ad 1. The authors posed and answered a well defined question.

Ad 2. The methods are adequate and well described.

Ad 3. The data are sound.

Ad 4. The data are well presented and sound with the standards for reporting

Ad 5. Discussion and conclusion are supported by literature and the data presented

Ad 6. The limitations are clear.

Ad 7. It is clearly acknowledged.
Ad 8. Title and abstract are representative.

Ad 9. The writing is acceptable.

Major compulsory revisions: none

Minor essential revisions:

Introduction:
§ 2, line 3: In all published studies... (really?), better: In most published studies... (please cite some high impact references)

Patients and methods:
§ 1, line 3: Why didn’t you chose the device adjusted to the patient’s body weight or height?

Statistical analysis:
§ 1, line 1: Which test and reference was used for the analysis of power?

Authors’ section:
All authors belong to the same institution. 8 times indexing the authors affiliation is unnecessary. Please index 1 after each name and mention the 1 indexed institution once.

Language:
The entire manuscript is nicely written. Unfortunately to many German phrases have directly been translated without any English customizing or the correct use of English idioms and therefore I strongly recommend a native speaker’s or professional reediting. In conclusion the manuscript needs some language corrections before being published.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'