Reviewer’s report

Title: Dislocation rates of postoperative airway exchange catheters. A prospective case series of 200 patients

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Reviewer: Silvia De Rosa

Reviewer's report:

The manuscript by Roten F.M. et al. is a prospective observational Study on dislocation rates of nasal versus oral airway exchange catheters for postoperative airway management. The study includes 200 adult patients who were admitted between December 2009 and May 2011 in PACU after extubation via AEC. However, the methodology of the study is not really clearly showed. The manuscript has some concerns regarding the methods used:

Title: I suggested to re-write the title

Introduction: Tracheal extubation is the logical consequence of tracheal intubation, and continued control of the airway after extubation constitutes part of the overall airway management. For this reason, I suggest the authors to underline the lack of guidelines for the period during and immediately after tracheal extubation and the importance of extubation algorithm. An effective extubation strategy should have a low reintubation rate and not cause patient discomfort. I prefer that authors better specified that "the airway exchange catheter is a device, designed to maintain access to the airway after extubation, and may, thus, facilitate reintubation". In addition, it should be specified how this catheter works. Page 4, line 24: It is necessary underline that "Difficult tube exchange was encountered in 6 of 8 patients with pneumothorax." Page 4, line 37: If it is possible, can the authors better explain the kind of dislocation and the reason why they investigate dislocation rate

Methods: The local ethics committee approved the study, that was registered in a clinical study registry (ISRCTN 96726807). From methodologic Point of view, it is better just define the Study as observational prospective study. Although the inclusion criteria were clearly stated, there is a lack of exclusion criteria. The Choice of the Device was of the treatment physician. Page 5 line 15 "As the decision for an AEC was made by the attending anesthesiologist … telephone and postal letter": probably, this part should be placed next to the decision to place the device.

Primary and secondary endpoints were not clearly stated in method section but only in results section.
How the authors define "the Depth of AEC"?

Results: Study flowchart could be useful for this observational study, because of patients excluded during the analysis too.

ENT: please explain the acronymus

Dislocation rate and sides effects: why did you not considered it as patient excluded? What about catheters removed without prior checking by the attending anesthesiologist? Which kind of Side effects you considered? Just pneumothorax? Why did you considered in your Analysis patients with missing data?

Why 3 oral catheters remained in place longer than 6 hours (maximum of 11), whereas 16 nasal catheters remained in place longer than 6 hours, 6 of them longer than 12 hours (maximum of 19)?

Conclusions:

Contrary to authors expectations, the prospective observational study showed that orally placed AEC tended to have a higher dislocation rate compared to nasally placed AEC (odds ratio 2.86), but the finding was not statistically significant. Probably, there is a bias related to the methodology of the Study in which attending physician insert more frequently the device from the mouth

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.

Yes
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
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