Reviewer’s report

Title: Acquisition of Basic Ear Surgery Skills: A Randomized Comparison between Endoscopic and Microscopic Techniques

Version: 0 Date: 31 Jul 2019

Reviewer: Li-Ang Lee

Reviewer’s report:

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Dr. Anschuetz and co-workers performed a quasi-experimental study to assess the difference in acquisition of basic ear surgery skills between endoscopic and microscopic techniques. This study was very interested; the study design and methodology were correct; the statistical analysis was fine; the discussion was excellent; and the conclusion was sound. Comparing to traditional microscopic technique, novel endoscopic technique seems to take less time and cause a lower damages of the ossicular chain in medical students. However, the benefit of endoscopic ear surgery was similar to residents and consultants. The authors recommended that the endoscope should be considered to applied to improve surgical skills in the middle ear in young surgeons without previous training in ear surgery. I have only some minor comments.

1. Please provide a flow chart of this study to let the readers understand the study design more clearly.

2. Please add the P values of statistical comparisons in Table 1, Figure 3, and Figure 4 for better reading.

3. Please convince the readers that residents performed endoscopic technique better than microscopic technique in terms of time and ossicular damage.

4. Please provide detail comparisons of repeated measurements ANOVAs (perhaps add Table 2). If possible, interactions among variables should be discussed.

5. What is the definition of educational level in the first paragraph of the discussion?

6. If every last year medical student will become a young surgeon? If no, please modify the conclusion since this endoscopic training module only provided better training outcomes in terms of completion time, ossicular damage, and learning experience during training basic ear surgical skills in a cadaver course in medical students comparing with microscopic technology.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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
Please indicate the quality of language in the manuscript:

Acceptable

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