Author’s response to reviews

Title: Comparison of surgical field visibility during propofol or desflurane anesthesia for middle ear microsurgery

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Author’s response to reviews:

Dear Helen Roberton,

We read carefully the comment from the reviewers. We made the point to point revision according to the comments from you and the reviewers. We highlight the changes in red.

Technical Comments

Abstract: Kindly change Objective to Background

Main Manuscript: Introduction to Background

Declaration Section: Consent to participate is missing

Answer: We change the words. Please see Abstract Section, page 2, line 2. Page 3, line 8. In Ethical approval and consent to participate, we declare that “Written informed consent was obtained from all patients.” Please see 14, line 25-26.
David M. Polaner (Reviewer 1)

Thank you for your revision. Although you have tempered your conclusion in several places I am still troubled that the primary conclusion in the abstract and in the discussion (p11. l50) overstates the clinically important differences (or lack thereof) between groups. PR anesthesia resulted in surgical visibility scores that were statistically, but not clinically different. This is an excellent example of how we have become altogether too focused on p values while losing the focus on the clinical importance of our study results (see Wasserstein et al. American Statistician 2019. https://doi.org/10.1080/00031305.2019.1583913). I think that there should be a sentence in the discussion that clearly explains that the threshold of clinical difference with the Boezaart scale that was set for the study was not reached.

Answer: Thanks for your comment. We now revised the conclusion in Abstract Section as follow: Although PR anesthesia resulted in lower surgical field visibility scores than DR anesthesia, both groups had scores < 2, meaning no clinical differences between the two groups. DR provided acceptable operative conditions as well, albeit more remifentanil consumption was noted in the DR group. Please see page 2, line 20-23. We also revise the sentence in the result “Surgical field visibility score was lower in the PR group than in the DR group.” Please see page 2, line 12-13.

Accordingly, in the Discussion Section, we revise the sentences as follow: In our study, although PR anesthesia produced lower surgical field visibility scores than DR anesthesia, average surgical field visibility score was <2 under DR anesthesia, meaning no clinical difference between the two groups. According to Boezaart grading scale[12], score of 2 means slight bleeding, occasional suctioning required, and surgical field not threatened. These findings suggest that DR anesthesia is applicable for middle ear surgery and can explain why, in our otology surgical center, surgeons seldom complain of impaired surgical visibility during desflurane usage. Please see Discussion Section, page 9, line 20-23, and page 10, line 1-3.

Other minor comments:

p8, l30: was the PACU anesthesiologist blinded to the study or to the group assignment in the study?

Answer: Yes, we make it clear that “After surgery, patients were transferred to the PACU for monitoring and management by an attending anesthesiologist who was blinded to the group assignment.” Please see page 6, line 12-13, in Methods Section.

p12, l57: should be seldom (not "seldomly")
Answer: We correct the word. Please see page 10, line 3.

p12, conclusion: "in summary" is not needed- begin the sentence with "Although", and delta the comma after desflurane.

Answer: We begin the word with “Although” and delta the comma after desflurane. Please see page 11, line 1-4.

Smita Prakash (Reviewer 3)

The authors have made suitable modifications to the manuscript. I suggest the following or something akin to it for the Conclusion: In summary, although there is a statistically significant difference between propofol-remifentanil and desflurane-remifentanil groups with regard to surgical field visibility according to Boezaart scale, when remifentanil is used in combination with desflurane, similar operative conditions are achieved. The requirement for remifentanil is greater in the desflurane-remifentanil group.

Answer: We revise the Conclusion Section as follow: Although there is a statistically significant difference between propofol-remifentanil and desflurane-remifentanil groups with regard to surgical field visibility according to the Boezaart grading scale, when remifentanil is used in combination with desflurane, similar operative conditions are achieved. The requirement for remifentanil is greater in the desflurane-remifentanil group. Please see page 11, line 1-4.