Peer Review File

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Reviewer A

This is an exciting pilot study on the benefits and disadvantages of "hot" tonsillectomy versus interval tonsillectomy for acute tonsillitis and peritonsillar abscess. The discussion is compelling and very useful, and the Australian perspective in these current times post-COVID is essential.

Reviewer B

This is an interesting pilot study that challenges our current paradigm of treatment for tonsillectomy. It is a pertinent issue in the resource-stretched health system. There are numerous areas of uncertainty precluding conclusive results. However, the authors have covered this by highlighting that this is a pilot study and although there is a published metanalysis, further research is required to fully quantitate the overall benefits of a change in practice.

Given the measured tone of the findings based on a small sample but also the significance of this finding for a health system struggling to manage the tonsillectomy waiting list, this paper is worthy of publication in its current form.

Editorial Comments:

Abstract

Comment 1: The abstract background can be deleted appropriately, such as deleting Lines 24-27 "Classically, interval tonsillectomy is ... intra-operative blood loss.".

Reply: Thank you for this edit. It has been implemented.

Changes in text: Page 2 line 24-27.

Comment 2: According to the objective of the study, the research design of this study should be classified as a cross-sectional study.

Reply: Thank you for this clarification. It has been implemented in the Abstract and throughout the manuscript. **Changes in text**: Page 2 line 27 and line 30, Page 5 line 100, Page 6 line 142, Page 10 line 189.

Comment 3: The study time span, research location, participants' inclusion and exclusion criteria, and measurement methods of parameters, should be supplemented in the Abstract-Methods. **Reply**: Thank you for this suggestion. It has been implemented. **Changes in text**: Page 2 line 31-34.

Introduction

Comment 4: To ensure readers comprehend the rationale for this review, we suggest the authors give a concise overview of the interval "cold" tonsillectomy and the principle/operation difference between interval "cold" tonsillectomy and acute "hot" tonsillectomy.

Reply: Thank you for this suggestion. It has been included.

Changes in text: Page 3-4 line 74-75.

Methods

Comment 5: Please describe the design (cross-sectional study), the time span, the periods of recruitment, and when the authors collected the data.

Reply: Thank you for this suggestion. It has been included.

Changes in text: Page 5 line 100-102 amended, Page 8 line 158 altered.

Comment 6: Please provide a succinct overview of the surgical procedure (PMA) in the methods section. **Reply**: Thank you for this suggestion. We have amended the text to reflect this. **Changes in text**: Page 6 lines 130-132.

Comment 7: Can statistical power be ensured with the presented sample size? We kindly suggest providing the sample size calculation in Methods.

Reply: As this is a pilot feasibility study with a small sample size, our statistical power is limited which in turn limits the strength of our analysis. However, we attempt to account for this in the limitations section of our discussion (please see Page 11 Line 230-232) and we endeavour to have a guarded interpretation of our statistical analysis. We hope the reviewers and Editorial team agree. We have made changes to the text to reflect this guarded interpretation (see below). Using Fisher's formula, for a future study to have statistical power for a 95% confidence level, a standard deviation of 0.5, and a confidence interval of \pm 5%, we would require 384 patients.

Changes in text: Page 10 line 194-195.

Comment 8: Please report whether the P value was a one-sided or two-sided test. **Reply**: We have amended the text to reflect it was a two-sided test. **Changes in text**: Page 6 line 151.

Comment 9: The time of surgery for one patient in the study was absent and the handling of this missing data needs to be stated in the methods.

Reply: Thank you for this correction. We have rectified this in the Methods section. **Changes in text**: Page 6 line 138-140.

Results

Comment 10: Please use a flow chart to present a specific process for including participants, from the initial selection of potentially eligible patients to the final inclusion of patients, with reasons for any exclusion. For your information, here is an example of our sister journal (See Figure

1): https://qims.amegroups.com/article/view/92472/html.

Reply: Thank you for this suggestion. Unfortunately, whilst we prospectively designed the inclusion and exclusion criteria and applied this rigorously during patient selection, we did not record the number of patients that were offered or considered but eventually excluded from the trial. Consequently, we are not able to complete this specific flowchart, although we do agree that this would strengthen our paper. We have amended our limitation section to reflect this issue.

Changes in text: Page 11 line 236-239.

Comment 11: Lines 158-159 "One patient's records with regards to operating time was missing and they were excluded from calculation of average operating time." In the event of missing data during the research process, rigorous data processing should be performed rather than simply excluded.

Reply: Thank you for this suggestion. We have now addressed what was done to try to rectify this issue of missing data in the Methods section (see Comment 9) and have amended the manuscript to reflect the method by which data-processing was conducted in the context of this missing data in the Results section. **Changes in text**: Page 8 line 170-172.

Comment 12: To control the effect of confounders, is it necessary to analyze and contrast the baseline data of both groups of patients when assessing the operative time and hospital stay of the two patient cohorts? **Reply**: Thank you very much for this suggestion. A one-way Analysis of Covariance (ANCOVA) test was conducted to control for the confounding effect of sex, age, number of tonsillitis episodes and number of admissions for tonsillitis. We present this information both in the methods and results as described below. **Changes in text**: Page 6-7 line 152-154, Page 9 line 185-187, Page 21 Table 2 line 360-361.

Comment 13: Please change the "Nil" (Table 1) to the None. **Reply**: Thank you for this recommendation. We have changed the table to reflect this. **Changes in text**: Page 19 Table 1.

Conclusion

Comment 14: Lines 235-236 "In this pilot study of PMA "hot" tonsillectomy, we demonstrated the PMA technique to be a safe and feasible method when treating patients with recurrent acute tonsillitis immediately." Observational studies conducted using small sample sizes cannot come to such definite conclusions. It is recommended that the author change the description to the following "In this pilot study of PMA "hot"

tonsillectomy, we concluded the PMA technique may be a safe and feasible method when treating patients with recurrent acute tonsillitis immediately."

Reply: The text has been amended as suggested, thank you. **Changes in text**: Page 13 line 252.