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OPEN PEER REVIEW

Postoperative Analgesia and Length of Hospital Stay After Surgery for Malignant Pleural Mesothelioma: A Retrospective Observational Study

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

3 comments · 28 Sep 2024 – 5 Oct 2024

Referee 1 Reviewer

MINOR REVISION 28 Sep 2024

Dear AE,
The manuscript presents a relevant and timely investigation into the association between postoperative analgesia and the length of hospital stay (LOHS) following pleurectomy/decortication (P/D) for malignant pleural mesothelioma (MPM). The study effectively addresses a gap in the literature and has implications for improving postoperative management in this patient population. The structure is clear, with appropriate sections covering the background, methods, results, and discussion.

Title and Abstract:

Ensure that the title specifies that it's a cohort study or observational study and that the abstract provides an informative summary of the methodology and findings.

Introduction:
Some sentences lack references. All sentences quoted from other articles must have references at the end of each sentence.
For example:
Pleurectomy/decortication (P/D) is a surgical procedure used as part of the multimodality treatment for malignant pleural mesothelioma (MPM).

Methods:
The description of analgesic techniques is clear. However, providing more information about the specific criteria for selecting ITPB versus IV fentanyl could clarify clinical decision-making.

Discussion:
The discussion section could benefit from a deeper exploration of the implications of the findings. For instance, discussing potential mechanisms behind the observed reduction in LOHS with continuous ITPB and how this compares to previous studies could strengthen the manuscript.

Addressing these flaws will significantly strengthen the manuscript, leading to a clearer, more transparent, and methodologically sound report of the findings.

Associate Editor

MAJOR REVISION 5 Oct 2024

Dear EIC,
Thanks and appreciation to the authors and researchers. The authors aimed to evaluate the association between postoperative analgesia and postoperative LOHS after P/D. The manuscript is a valuable research study. But some revisions are needed. The authors should revise it based on the reviewers' comments.

Editor-in-Chief

MAJOR REVISION 5 Oct 2024

Dear Author,
Thank you for submitting the article. It needs some revision. Please revise it based on the reviewers' and AE's comments.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Following to the Reviewers' comments, we rewrote our manuscript. Changes were highlighted in red color.

Replies to the Reviewer #1's Comments

Comment 1: Why you did not distribute the patients equally in your both groups?
Reply: Thank you very much for your valuable comments. Since our primary outcome was to evaluate the association between postoperative analgesia and postoperative length of hospital stay (LOHS) after this surgery, comparisons between two methods of postoperative analgesia were performed as a subgroup analysis without equalizing patient characteristics between the two methods. As a subgroup analysis can lead to misleading results, we added the following sentence in the Discussion section with additional reference.

The second paragraph in the Discussion section: "A subgroup analysis may provide useful information, and can also lead to misleading results.[21]"

References: 21. Wang R, Lagakos SW, Ware JH, Hunter DJ, Drazen JM. Statistics in medicine--reporting of subgroup analyses in clinical trials. N Engl J Med. 2007; 357: 2189-94.

Comment 2: Why the patients dud not receive any premedication before surgery?
Reply: We added the following sentence in the Methods section: "Appropriate preoperative fasting was enforced for all patients, and no pre-medications were administered due to the low risk of pulmonary aspiration."

Comment 3: Please not the average duration of surgery in both groups?
Reply: There was no significant difference in the length of surgery between two groups. Thus, we added the following sentence in the Results section as follows: There were no significant differences in the length of surgery, blood loss, and transfusion volume between two groups.

Comment 4: Have all the patients been extubated in OR or ICU or what?
Reply: We added the following sentence in the Methods section: All patients were extubated in the operation room, and then transferred to the ICU.

Comment 5: Why did you mention the patch of Fentanyl as pain relief? Did you use it also in Fentanyl group as well?
Reply: We have stated that fentanyl patch was additionally used in both groups in the original manuscript in the Methods section.

Replies to the Reviewer #2's Comments

Comment 1: Title and Abstract: Ensure your title specifies that it's a cohort study or observational study, and the abstract provides an informative summary of the methodology and findings.
Reply: Thank you very much for your valuable comments. We confirmed that our abstract provides an informative summary of the methodology and findings in the original manuscript. However, we changed the title from "Postoperative analgesia and length of hospital stay after surgery for malignant pleural mesothelioma" to "Postoperative analgesia and length of hospital stay after surgery for malignant pleural mesothelioma: a retrospective observational study" in the revised manuscript.

Comment 2: Introduction: Some sentences lack references. All sentences quoted from other articles must have references at the end of themselves. For example: Pleurectomy/decortication (P/D) is a surgical procedure used as part of the multimodality treatment for malignant pleural mesothelioma (MPM).
Reply: We added reference # as follows in the first paragraph of the introduction section: Pleurectomy/decortication (P/D) is a surgical procedure used as part of the multimodality treatment for malignant pleural mesothelioma (MPM).[1, 2] MPM is a rare and aggressive cancer of the lining around the lung, often linked to asbestos exposure.[1-3] The surgery, which involve removing the pleura with or without the pericardium and/or diaphragm is one of the maximally invasive procedures among non-cardiac surgeries.[3] This

likely contributes to the long mean duration of hospitalization (21 days) and the high in-hospital mortality rate (3.2%).[4]

Comment 3: Methods: The description of analgesic techniques is clear. However, providing more information about the specific criteria for selecting ITPB versus IV fentanyl could clarify clinical decision-making.
Reply: Thank you for your comment. We rewrote the following sentence in the Methods section: The anesthesiologist in charge determined whether to perform ITPB or TPVB after induction of anesthesia, as appropriate based on the patient's co-morbidities (e.g., coagulopathy, thoracic spine deformity, cancer invasion at the site of regional anesthesia) or his/her experience.

Comment 4: Discussion: The discussion section could benefit from a deeper exploration of the implications of the findings. For instance, discussing potential mechanisms behind the observed reduction in LOHS with continuous ITPB and how this compares to previous studies could strengthen the manuscript.
Reply: We appreciate your valuable feedback. We performed the Sugroup analysis to reveal potential mechanisms behind the observed reduction in LOHS with continuous ITPB. However, the Subgroup analysis was performed with a small number of participants, so we had to be cautious in its interpretation, and avoided going into too much depth. Therefore, we added the following sentence in the Discussion section with additional reference.

The second paragraph in the Discussion section: "A subgroup analysis may provide useful information, and can also lead to misleading results.[21]"

References: 21. Wang R, Lagakos SW, Ware JH, Hunter DJ, Drazen JM. Statistics in medicine--reporting of subgroup analyses in clinical trials. N Engl J Med. 2007; 357: 2189-94.

2 Revision 1

3 comments · 9 Nov 2024 – 9 Nov 2024

Referee 1 Reviewer

ACCEPT 9 Nov 2024

Dear AE,
Thank you for paying attention and responding to the reviewer's comments.

Associate Editor

ACCEPT 9 Nov 2024

Dear EIC,
I reviewed the manuscript again. The great effort in improving the manuscript is highly appreciated.
The authors have addressed all comments.
Thank you

Editor-in-Chief

ACCEPT 9 Nov 2024

Dear AUTHORS,
Your revisions have significantly improved the article, and it is now deemed acceptable for publication.
Congratulations on your hard work and dedication to enhancing the quality of your work.