

Reviewer1

Major concerns

Title. The type of the study must be reported. It is a retrospective study. Consider that a pilot study cannot be a retrospective analysis.

Comment: I agreed with reviewer. We have revised the title.

Minor issues

Line 95 (Introduction). Close the round bracket after the word "surgery".

Comment: Revision has been made.

Line 98. The number of the reference must be inserted after the name (et al.). It is number 8 of the list.

Comments: Revision has been made.

Lines 103 and 104. About the sentence "While previously published studies have focused on the management of intraoperative anesthesia during POEM surgery ... " please insert references.

Comments: We have revised the all paragraph.

Lines 104 to 107. About the sentence "postoperative pain management has been neglected by anesthesiologists due to the short operative time, short hospital stay, and the minimally invasive nature of the POEM procedure", are you sure of this. Please give us proofs (references).

Comments: We have revised the all paragraph.

Line 107. "we conducted". In a scientific paper, if you use "the authors conducted" it probably sounds better. It should be better explained by (and to) the translators.

Comments: Revision has been made.

Lines 121 to 124. In a retrospective investigation, precise inclusion and exclusion

criteria must be explained.

Comments: Revision has been made.

Inclusion criteria:

- 1) Male or Female. Age between 18 to 75 years.
- 2) With diagnosis of achalasia.
- 3) Received POEM surgery in Zhongshan Hospital Fudan University from November 2017 to April 2018.
- 4) With completed anesthesia record and operative report.
- 5) Signed informed consent.

Exclusion criteria:

- 1) With past experience of Heller surgery or POEM surgery.
- 2) Preoperative chronic pain management.
- 3) Cognitive dysfunction or an inability to attend follow-up.

Lines 157 to 159. feeding and preoperative fasting do not impact postoperative pain. The anesthesia management "succinylcholine 1 mg/kg and remifentanyl 1 g/kg, and was maintained with desflurane (0.8MAC), fentanyl 2-4 μ g/kg, and remifentanyl 0.05-0.1 μ g/kg \cdot min. Cis-atracurium (0.03mg/kg per hour) was used to assist intraoperative mechanical ventilation .. " is very questionable. Remifentanyl bolus ... fentanyl plus remifentanyl for anesthesia maintenance ... and succinylcholine use are not for a scientific paper. This bizarre regimen can also affect postoperative pain. I cannot endorse it.

Comments: We have revised our anesthesia management part. While previous studies indicated that continuous intraoperative infusion of remifentanyl more than 0.2 μ g/kg \cdot min may cause postoperative hyperalgesia [1-3], our dosage is far less than that. Besides, both fentanyl, which was a long-acting opioid, and acetaminophen, which was an NSAIDS, were administrated intraoperatively and could prevent postoperative remifentanyl hyperalgesia [4]. So, we think our anesthesia regimen may not induce postoperative hyperalgesia. The following are references.

1. Short- and long-term impact of remifentanyl on thermal detection and pain

thresholds after cardiac surgery: A randomised controlled trial European Journal of Anaesthesiology(2018)

2. Remifentanil-induced postoperative hyperalgesia and its prevention with small-dose ketamin. Anesthesiology(2005)

3. Intervention strategies for prevention of remifentanil-induced postoperative hyperalgesia. 国际麻醉学与复苏杂志 2018

4. Zhang L, Shu R, Zhao Q, et al. Preoperative butorphanol and flurbiprofen axetil therapy attenuates remifentanil-induced hyperalgesia after laparoscopic gynaecological surgery: a randomized double-blind controlled trial[J]. Br J Anaesth, 2016, 117(4): 504-511. DOI:10.1093/bja/aew248.

In short, I believe that the study design has several and insurmountable gaps. The study is a retrospective analysis and not a pilot study which by definition is prospective in nature. A retrospective study must have a precise design, to be exposed to the reader. For this purpose, the authors should insert a flow chart. Although in lines 114 to 116 you stated that "This was a preliminary study for a prospective study", it is not correct. A preliminary analysis of retrospective analysis should be better explained by the biostatitiscians. The anesthesia regimen has great issues.

Reviewer2

1 Title Pain should not be ignored after peroral endoscopic myotomy I believe the novelty of this manuscript lies in identifying the risk factors for increased post POEM pain and the Title Does not reflect that. Hence consider changing the title to something that describes the main findings of the study related to predictors of post POEM pain.

Comment: I agreed with the reviewer and already revised the title.

2. Background I found serious issues with the background that works as the preface for this study. The authors state, "However, postoperative pain management for these patients is often neglected by anesthesiologists because of the short operative time, short hospital stay and the minimally invasive nature of the procedure." They make the above statement without providing any reference. Post operative pain is a well identified and well studied periprocedural outcome for patient's undergoing POEM. It has been used in many well designed studies to compare outcomes between patients undergoing POEM and Laparoscopic Heller Myotomy. Please see the following references:

<https://doi.org/10.1007/s00464-016-5034-3>

<https://doi.org/10.1007/s11605-012-2030-3>

<https://doi.org/10.1016/j.surg.2013.04.042>

<https://doi.org/10.1007/s00464-014-4040-6>

Comments: Revision has been made.

3. Introduction Please consider replacing the following phrases/terms with more standard ones. - Megaloesophagus (with Achalasia) - Diastolic dysfunction of LES (with Achalasia) - Balloon Dilation (with pneumatic balloon dilation)

Comments: Thanks for the suggestion. However, I thought achalasia is a standard word for the specific disease. Thus, "diastolic dysfunction of LES" may not be appropriate to be replaced with achalasia.

4. Discussion, Para 4, replace "Muscle incisor" with "muscle incision"

Comment: Revision has been made.

5. Conclusion Authors state, "Anesthetists and endoscopists should pay more attention to the severity of achalasia than to the POEM procedure itself when evaluating the risk for post-POEM pain." This statement is confusing as the authors within the same paragraph also point out that distance between incision edge and cardia correlates with post operative pain.

Comments: I agreed with the reviewer and already revised into "Thus, anesthesiologists and endoscopists may pay attention to not only the surgical procedure itself but also the severity of achalasia."

6 Abstract. The abstract summarizes and reflects the work described in the manuscript.

7 Key words. The key words reflect the focus of the manuscript.

8 Methods. The manuscript describe methods in adequate detail.

9 Results. The research objectives are achieved by the experiments used in this study. The novelty of this study lies in understanding risk factors for increased post operative pain in patients undergoing POEM.

7 Discussion. The manuscript interprets the findings adequately and appropriately, highlighting the key points concisely, clearly and logically. The findings and their applicability/relevance to the literature is stated in a clear and definite manner. The discussion is accurate and discusses the paper's scientific significance and/or relevance to clinical practice sufficiently.

11 Illustrations and tables. The figures, diagrams and tables are sufficient, good quality and appropriately illustrative of the paper contents.

12 Biostatistics. The manuscript meet the requirements of biostatistics.

13 Units. The manuscript meet the requirements of use of SI units.

14 References. The manuscript cites appropriately the latest, important and authoritative references in the introduction and discussion sections.

15 Quality of manuscript organization and presentation. The manuscript is concise and coherently organized. The style, language and grammar are accurate and appropriate. 16 Research methods and reporting. The authors prepared the manuscript according to the appropriate research methods and reporting.

17 Ethics statements. Included however it is not in English

18 The Informed consent statement is not in English

Editor

I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

The manuscript discusses the pain after transoral endoscopic myotomy in patients with achalasia. This is a very meaningful question. In addition, the author should supplement the literature in the recent five years for discussion. Modify the sentence in the background that postoperative pain is easy to be ignored. It is unacceptable to have more than 3 references from the same journal. To resolve this issue and move forward in the peer-review/publication process, please revise your reference list accordingly. Can you add a flow chart of the study?

Language Quality: Grade C (A great deal of language polishing)

Scientific Quality: Grade C (Good)

Comments: I already added a flow chart.