

Peer Review File

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Response to comments:

Reviewer #A

I am reviewing a clinical study comparing bronchial blocker and double-lumen tube for one-lung ventilation (OLV) during right video-assisted thoracic surgery (VATS) for esophageal cancer surgery. Thanks to the authors for their great effort showing us that bronchial blocker can be a better choice with faster lung collapse during OLV. The following are suggestions for the authors.

1. I guess this a surgeon-blinded randomized study. It would be nice to follow the CONSORT guideline to report a randomized trial.

Reply: Many thanks for suggestions! According to the reviewer's suggestions, we have followed the CONSORT guideline.

Changes in the text: L1, L92, L102-104.

2. It is believed that how to do it (techniques) is more important than the devices used. Therefore, readers would be more interested in the details of how you work with these devices, which should be applicable in their anesthesia practice. For example, denitrogenation is a crucial component to facilitate rapid lung collapse during OLV. I would like to know what's the oxygen fraction before and during OLV, both in bronchial blocker and double-lumen groups. Is the central lumen of the bronchial blocker closed during OL?

Reply: Many thanks for suggestions! According to the reviewer's suggestions, we have modified our text in "method" section.

Changes in the text: L118.

3. What is the ventilator setting during OLV.

Reply: we have modified our text in "method" section. See line120-122. Many thanks for suggestions!

4. Line 125: the data of tube displacement should be a proportion. Mann-Whitney U test is not the right statistical method here.

Reply: we have modified our text in "Statistical Analysis" section. See page line 172-174. Many thanks for suggestions!

5. Line 129: for the sample size calculation, the authors cited a previous study using the proportion of two groups. However, the primary endpoint of the reviewing study is lung collapse score, which was a kind of continuous data. A comparison of means of groups may be more appropriate here.

Reply: we have modified our text in "Statistical Analysis" section. See page line 170. Many thanks for suggestions!

6. Line 145: time for tube localization in CBB group was 180+/-120s, which was not the same as data in table 2. Please confirm?

7. Line 184: it should be nitrous oxide (N₂O), instead of NO.

8. Figure 2: Figure 2 could be re-arranged as separate parts, instead of embedded the part (b) and part (c) on the part (a).

Reply 6-8. We have modified our text according to the reviewer's suggestions. Many

thanks.

9. The cuff of bronchial blocker was torn in 2 cases, why and how it happened?

Reply: we have modified our text in “discuss” section. See page line262-264.

10. In my practice, a bronchial blocker is more frequently associated with tube displacement during OLV, especially for right-sided VATS due to the short right main bronchus. To my surprise, tube displacement happened nearly 1 in every five patients with a double-lumen tube. Is there any explanation for the difference?

Reply: we have modified our text in “discuss” section. See page line255-256.

Reviewer #B

I have reviewed the manuscript entitled “A comparison of the efficacy and airway complications of a Coopdech bronchial blocker and a double lumen endotracheal tube for minimally invasive esophagectomy.”

One of the weaknesses of the study was that it was not a randomized study, therefore it is possible that the authors might have bias towards a CBB or DLT. Still they reported interesting information. The CBB facilitated faster collapse by a few minutes when compared to the DLT. The confirmation with the fiberoptic bronchoscope was longer for the CBB group than the DLT. Sore throat was more evident in the DLT. However, one point that calls my attention is the two balloon cuff ruptures with the use of CBB. Could you please discuss potential causes to why balloon ruptured in the CBB? The single-lumen tube supposed to protect the bronchial blocker because it is advanced intraluminal. Also add some relevant information into the discussion.

What brand of DLT did you use? Please describe into the manuscript. Also, add in the limitations that the study was NOT randomized on the discussion section please writer Discussion.

The conclusions from the authors make sense and good recommendations based upon their findings.

Figure 1 and 2 are good

Table 1 and 2 are good

Reply: Many thanks for the reviewer's suggestions! We have followed the CONSORT guideline and modified our text according to the reviewer's suggestions. Please see page line133, line262-264.

Reviewer # C

Authors compared the Coopdech bronchial blocker and the double-lumen endotracheal tube for minimally invasive esophagectomy. The work is well executed and provided with clear and comprehensive information.

Unfortunately, this topic has already been extensively covered in medical literature and the contribution that this paper, albeit of a good standard, makes to this issue is not decisive in the management of one lung ventilation.

Reply: Many thanks for the reviewer's suggestions and comments. We think our study is worth for an anesthesiologist who specialized in thoracic anesthesia.