Peer Review File

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Review Comments

Reviewer A

I thank the authors for their efforts. I have few comments:

Comment A-1: Starting from the end, the conclusion needs to be enriched by using existing data, the clinical use frequency in M VATS worldwide still needs improvement with education; so insisting on U VATS for senior surgeons will take opportunity for the juniors to catch train. So better discussion on pros and cons will be fine mostly on educational opportunities.

<u>***Reply A-</u>1: We greatly appreciate this comment. Indeed, we believe that better educational opportunities would increase the adoption of U-VATS worldwide. Learning a technique from a senior surgeon is the safest and most responsible way of adopting a new technique. Therefore, we will only be able to teach junior surgeons properly when senior surgeons embrace this technique. Existing data are scarce, and our own data shows better outcomes with enhanced recovery protocols and equivalent outcomes using U-VATS and M-VATS.

***Changes in text A-1:

Conclusions section: The phrase encouraging surgeons to leave their comfort zone and try something new was removed from the concluding statement of the manuscript and added that once senior surgeons embrace the technique, it can be properly taught to junior surgeons.

Comment A-2: The last sentence about leaving the comfort zone needs a better and modified expression. This may sound as if the surgeon does not perform U VATS this takes a better treatment opportunity for the lung cancer patients. In my point of view

this may be oncological result like disease-free time or overall survival. But we know that superiority of VATS even on open surgery had never covered this.

<u>***Reply A-2</u>: We thank the reviewer for their comments. We also believe that oncological data would better convince surgeons to adopt U-VATS and hope such evidence may be provided as more surgeons adopt the procedure. We agree with your comment regarding the statement that surgeons should leave their comfort zone. The phrase encouraging surgeons to leave their comfort zone and try something new was removed from the concluding statement of the manuscript.

<u>***Changes in text A-2:</u> Line 272 – end of dicussion: We changed « higher level evidence » to « stronger oncological data ». The phrase encouraging surgeons to leave their comfort zone and try something new was removed.

Comment A-3: The technical details of the teams U VATS looks great but at this a review a general description of basic fundamentals would be enough.

<u>***Reply A-3</u>: We thank the reviewer for their comment. We believe a thorough description of U-VATS is warranted due to the limited number of surgeons practicing this technique in North America and that a better understanding of U-VATS procedure could pique curiosity amongst surgeons.

<u>***Changes in text A-3</u>: None

Reviewer B

Thank you for the opportunity to review the manuscript "Uniportal Video-Assisted Thoracoscopic Surgery for Lung Cancer – Current Practices and Outcomes." for Current Challenges in Thoracic Surgery.

You spend a lot of effort in preparation of this manuscript and are according to the Narrative Review Checklist. The whole article is well written and comprehensible. Furthermore, the manuscript highlights the benefit of an standardised management of surgical treatment.

Comment B-1: I just got one annotation: The references are written behind the punctuation marks several times.

<u>***Reply B-1</u>: We thank the reviewer for their kind comments. The references have been placed inside the punctuation marks as requested.

<u>***Changes in text B-1</u>: The references have been placed inside the punctuation marks throughout the manuscript as requested.

Reviewer C

It is my pleasure to review this article. The authors reported to review the outcomes of uniportal VATS lobectomy for lung cancer and institutional experience. The authors well demonstrated the trends on uniportal VATS for lung cancers by considering future perspectives.

I think this paper has minor concerns to be discussed, listed as follows:

Comment C-1: In the title, "lobotomy" was not contained that the objective of this article might be vaguely understood. Also, "Pneumonectomy" seems can be deleted from keywords to confine the subjects, as described in the abstract. If pneumonectomy should be included, related studies also need be suggested.

<u>***Reply C-1</u>: We thank the reviewer for this comment. We believe that "lobectomy" should not be added to the title because we also discuss other types of lung resection using the uniportal approach, albeit briefly. Pneumonectomy has been deleted from the keywords.

<u>***Changes in text C-1:</u> Line 27, We removed "pneumonectomy" from the key words.

Comment C-2: Any institutional DAP, ERP and pain protocols have modified for U-VATS lobectomy compared to M-VATS?

<u>***Reply C-2</u>: We thank the reviewer for this interesting question. At our institute, no changes have been made to any institutional DAP, ERP and pain protocols following the adoption of U-VATS. The only difference was that we performed preemptive intercostal nerve blocks as a personal preference during UVATS.

***Changes in text C-2: None.

Comment C-3: Regarding postoperative pain, authors' opinion (pro or cons) or institutional outcomes seem helpful to reference 46 in line 209.

<u>***Reply C-3</u>: While we have not specifically or quantitatively examined pain after U-VATS as compared with M-VATS, our experience confirms what has been published in the literature on the subject. We added material to the postoperative section detailing our opinion and rationale for considering U-VATS a less painful surgical approach than M-VATS

<u>***Changes in text C-3:</u> We added a material to the postoperative pain section. Lines 212-215.

Comment C-4: It might be clearly focused by rearranging paragraphs describing institutional protocols in the methods.

<u>***Reply C-4</u>: We thank the reviewer for this suggestion. However, we believe the institutional protocols should remain in the discussion. It is our understanding that the methods for a narrative review should only include research literature selection. Furthermore, our institutional protocols are key findings for this narrative review and as such, we believe they should be part of the discussion.

***Changes in text C-4: None.

Comment C-5: In lines 135-138, ref 25 is repetitive that one of them can be removed.

***Reply C-5: We thank the reviewer for bringing this to our attention. Indeed, we

agree and have corrected the redundancy!

***Changes in text C-5: Line 136, reference 25 was removed.

Reviewer D

Comment D-1: Figure 1 and 2 are actually the results according to previous report from authors. There was no new data here.

<u>***Reply D-1</u>: The reviewer is correct. This submission is a narrative review and as such it discusses previously published data in context.

***Changes in text D-1: None.

Comment D-2: The author should provide more data about their result of early recovery after surgery.

<u>***Reply D-2</u>: We thank the reviewer for this suggestion. We agree that early recovery data is important, and we believe that throughout this paper, the postoperative outcomes of pain, length of stay, chest tube drainage and short-term mortality were well described and put into perspective between the literature and our own data. It should be noted that most of our data on this subject were presented in this review.

***Changes in text D-2: None.

Comment D-3: "The use of enhanced recovery protocols and guidelines for lung cancer management is the key to provide the best care for patients and allow them a faster return to their normal life". There was no data support this result. The authors' data should have a comparison with the literature report.

<u>***Reply D-3</u>: We thank the reviewer for this suggestion. To support the statement referenced above, we added a reference from Wang and colleagues.

<u>***Changes in text D-4:</u> Line 130: « These enhanced recovery protocols and guidelines have a positive influence on patients' outcome (24). »

24. Wang C, Lai Y, Li P, et al. Influence of enhanced recovery after surgery (ERAS) on patients receiving lung resection: a retrospective study of 1749 cases. BMC Surg. 2021;21(1):115.

Reviewer E

Comment E-1: It would be better if the authors could provide the experience of their medical center in the article.

<u>***Reply E-1</u>: We thank the reviewer for their suggestion. This paper was written based primarily on experiences from our medical center including our institutional protocol and our approach to U-VATS. We believe our experience is well described throughout the entirety of this paper.

***Changes in text E-1: None.

Comment E-2: ">300ml" in Line 182 is believed to a typo and should be "<300ml". Please have a check.

<u>***Reply E-2</u>: Thank you for bringing this to our attention! Indeed, this was a typo.

***Changes in text E-2: We changed the text at line 185, <300 ml.

Reviewer F

We thank the authors for their manuscript.

This is a very well-written paper that provides an excellent overview of uniportal VATS. The reviewers made a few minor comments, and the authors may consider these in making revisions to their paper.

I like the technical description that the authors provided, that I think will be useful to readers to conceptualize the surgical approach. The data the authors provided concerning their experience with the adoption of uniportal VATS is also clear and informative. One of the reviewers suggested providing information on educational opportunities for surgeons considering adopting uniportal VATS. This seems like an

excellent suggestion, and perhaps the authors could provide the reader with a very brief flow sheet of what an adoption scheme might look like. We look forward to receiving the updated version of the manuscript.

Comment F-1: Perhaps the authors could provide the reader with a very brief flow sheet of what an adoption scheme

**** Reply F-1: Flow Sheet on adoption suggestion added as a supplement material