

## Peer Review File

Article information: <https://dx.doi.org/10.21037/med-22-20>

### Review Comments

I am pleased to submit revisions for our clinical practice review article entitled “Surgical approaches to mediastinal cysts” by Diana Hsu, Kian Banks, and Jeffrey Velotta for consideration for publication in *Mediastinum* as part of the series, “Mediastinal Cysts”.

Below are our responses to the reviewers:

#### Reviewer A

This is a good review of the different approaches for the treatment of the mediastinal cysts. However, I have some remarks.

Personally, I do not agree with some statements, for example:

Surgical resection is usually required because these lesions can continue to increase in size and cause compressive symptoms. [Burjonrappa SC, Taddeucci R, Arcidi J. Mediastinoscopy in the treatment of 256 mediastinal cysts. JSLS. 2005 Apr-Jun;9(2):142-8.]

In my experience in many cases, especially in elderly patients, small anterior mediastinal cysts do not require surgical treatment. Nevertheless, the authors referred to the publication and might have a different opinion.

[Reply 1: Thank you for your input.](#)

[Changes in the text: None](#)

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The other notion, I do not agree is:

Cysts in the subcarinal area are difficult to see from thoracoscopy and contralateral pneumothorax can be easily achieved during the dissection.

In my experience, VATS is a convenient approach in such cases.

[Reply 2: Thank you for your input.](#)

[Changes in the text: The sentence regarding subcarinal cysts being difficult to see during thoracoscopy has been removed in line 108.](#)

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Some other remarks:

The authors completely neglected EBUS and EUS in diagnosis of the mediastinal cysts, especially those located in the middle and posterior mediastinum.

The authors omitted to mention the use of transcervical approach and subxiphoid approach and I suggest it should be complemented.

[Reply 3: Thank you for this observation.](#)

[Changes in the text: We have added a section titled “Other approaches” after](#)

the RATS section that includes discussion of EBUS, transcervical, and subxiphoid approaches.

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## Reviewer B

1. Well researched and referenced review article; clear, concise, grammatically correct manuscript.
2. Comprehensive review of the literature on the historical development and progression of various open to minimally invasive surgical techniques for mediastinal cysts, which is useful for surgeons who need a current update and review on surgery for mediastinalcyst.
3. Relevant and adequate references.

Reply 1: Thank you for your input.

Changes in the text: none

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## Reviewer C

Congenital mediastinal cysts represent an infrequent and occasionally challenging group of patients presenting for thoracic surgery evaluation. The authors of this manuscript review small retrospective series and selected case reports of surgery to remove mediastinal cysts with a focus on the recent paradigm shift from open to minimally invasive approaches (VATS/RATS). In general, utilizing minimally invasive approaches for benign conditions such as congenital mediastinal cysts make sense and the authors clearly demonstrate the feasibility of minimally invasive approaches to safely remove mediastinal cysts.

While their review is well done, it is likely limited by the nature of published case reports which typically concentrate on successful outcomes.

Reply 1: Thank you for this observation

Changes in the text: We have included a sentence regarding this as a limitation of the nature of our review in the Conclusion section.

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Other limitations of this review would include lack of good “control” patient groups undergoing open surgery and accordingly reported VATS/RATS cases are more likely to have been performed in select patients by surgeons with experience in minimally invasive techniques.

Reply 2: Thank you for this observation

Changes in the text: We have included a sentence regarding this as a limitation of the nature of our review in the Conclusion section.

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Long-term results of subtotal excision with fulguration of any remaining cyst lining, would seem to need further study.

To avoid morbidity, it would seem prudent that surgeons attempting minimally

invasive approaches have a low threshold to convert to open surgery particularly for large cysts or cysts where dissection planes are not clear between the cyst and adjacent critical structures such as bronchial or esophageal walls.

I congratulate the authors on a very nice review of this topic.

[Reply 3: Thank you for this observation](#)

[Changes in the text: We have included a sentence regarding the low threshold to convert to open procedure in the Conclusion section.](#)

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## **Reviewer D**

I would like to thank the editor and the journal for providing me a great chance to read an interesting review paper. The article was well written and almost acceptable.

If possible, I wish that authors should mention the number of ports used in VATS and RATS. I assume that authors discussed multiportal VATS or RATS. The authors should mention whether 3-port approach, 4-port approach or something else was performed. In addition, uniportal VATS or RATS should be discussed in the review paper.

[Reply 1: Thank you for this observation. Yes, we have reviewed our studies and the VATS approach described in our references is 3-port and the RATS approach described in our references is 4-port.](#)

[Changes in the text: We have included in each introductory paragraph for VATS and RATS that the discussion uses multiport technique unless otherwise specified. We have added a section on uniportal VATS at the end of the thoracoscopic section. We were unable to identify any uniportal RATS discussing mediastinal resections and thus did not include it in our discussion.](#)

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Re-review: In the 6) section line 296 I suggested in the previous review to clarify in what cases they decide between VATS and RATS. They have explained when they choose the open approach but it is not clear when they choose the RATS approach instead of VATS.

[Reply: I have edited section 6 to explain when we would choose RATS over VATS or vice versa.](#)

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## **Reviewer E**

The authors reported about surgical approaches to mediastinal cysts.

As this is a review of the surgical approaches to mediastinal cysts, it should also describe surgical complications (and rates) of each surgical procedure.

Please correct the grammar. Line 207 “wrote” should be “write”, et al.

Reply 1: Thank you for this correction

Changes in the text: “Wrote” has been changed to “write”

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Line 115, thoracoscopic (VATS) should be video-assisted thoracoscopic (VATS)

Reply 2: Thank you for this correction

Changes in the text: Thoracoscopic (VATS) has been changed to video-assisted thoracoscopic (VATS)

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There are many references of surgical approach not for mediastinal cysts. This is a review of surgical approaches to mediastinal cysts, so please confirm the references are correct.

Reply 3: Thank you for this observation.

Changes in the text: You are correct in that surgical approach for mediastinal cysts is the topic of this review. However, we found that there was good insight regarding technique and surgical thinking from studies for mediastinal tumors as well. Thus, these studies were cited in addition to our studies on mediastinal cysts.

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The authors should also describe the latest approaches, such as the subxiphoid approach and robot-assisted approach.

Reply 4: Thank you for this observation.

Changes in the text: Subxiphoid technique is described in an additional section after RATS titled “Other approaches.” Robot-assisted approach is already discussed.

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## Reviewer F

It has been a pleasure to read this interesting review about the surgical approaches to mediastinal cysts.

I think it is a well structured review, the objective of the review is clear and the article answers correctly to that objective. The text is well organized and it is easy to read. There is an adequate bibliography to study deeper this topic.

I would like to add two comments:

- In page 8 the reference [14] is incorrect and it should be [15].

Reply 1: Thank you for this correction.

Changes in the text: We have corrected the error after accommodating our new references added for revisions.

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- In the last paragraph previous to the Conclusions, the authors comment that their preferred approach to mediastinal cysts is either VATS or RATS. It would

be interesting to know in which cases it is selected the VATS or the RATS approach.

Reply 2: Thank you for this observation.

Changes in the text: Our clinical practice is to use minimally invasive technique unless we anticipate not being able to maneuver in the chest or see beyond the cyst with insufflation.

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## Reviewer G

This is a nice review of both the pathology and surgical management of mediastinal cysts. It is well done.

My biggest glaring issue is that every time a paper is cited using the lead author, there are no commas with the et al. It should be Michel, et al.

Otherwise well done.

Reply 1: Thank you for this correction.

Changes in the text: We have made changes in the text as appropriate with the commas.

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