

## Peer Review File

Article Information: <https://dx.doi.org/10.21037/vats-23-66>

### Reviewer A

This is a very comprehensive narrative review on head and neck cancer pulmonary metastasectomy and minimally invasive pulmonary metastasectomy. It would be nice if there is more elaboration on minimally invasive pulmonary metastasectomy for head and neck cancer pulmonary metastases if there is any.

**Reply:** *There is very little data on minimally invasive surgery for pulmonary metastasectomy in head and neck cancer patients. We have included as much information as is available on this subject in the updated version of the paper. Hope this answers your question.*

### Reviewer B

Dear Authors,

the article is interesting but it need some clarification and discussion should be more accurate. Discussion should look more at the future.

- a) To clarify indication for surgery the work done on TNM classification on LM (1,2) could be useful and could help to perform a personalized approach for lung metastcsectomy (3). Furthermore it could be useful to have more information on prognosis. Few lines should be added in the discussion.

**Reply:** *The proposed TNM staging system for pulmonary metastases is not universally accepted at this point. For this reason, we decided to leave it out of our manuscript.*

b) The role of segmentectomy (4) should be better explained and discussed

**Reply:** *The role of segmentectomy has been included in the paper (lines 230 – 235)*

c) The role of lymphadenectomy should also be more discussed (5)

**Reply:** *The role of lymphadenectomy has also been mentioned in the paper (lines 148 – 154)*

d) Few words on possible awake surgery could complete the discussion.

1)Migliore M, Gonzalez M. Looking forward lung metastasectomy-do we need a staging system for lung metastases?. Annals of translational medicine. 2016 Mar;4(6):124.

2)Migliore M, Gonzalez M. TNM classification for lung metastases. Video-assist Thorac Surg 2021;6:36.

3)Bédât B, Forster C et al. , Abdelnour-Berchtold E, Gonzalez M. Personalized approach for video-assisted thoracic surgery lung metastasectomy. Video-assist Thorac Surg 2020;5:22.

4) Demarchi M, Triponez F,Karenovics W. Segmentectomy by video-assisted thoracic surgery for pulmonary metastases. Video-assist Thorac Surg 2021;6:7.

5) van Dorp, M., Bousema, J.E., Torensma, B., Dickhoff, C., van den Broek, F.J.C., Schreurs, W.H., Gonzalez, M., Kazemier, G. and Heineman, D.J., 2022. Pulmonary metastasectomy with lymphadenectomy for colorectal pulmonary metastases: A systematic review. European Journal of Surgical Oncology, 48(1), pp.253-260.

**Reply:** *We made mention of awake/non-intubated VATS in the paper and agree it could be a useful option in carefully selected patients (lines 235 – 238)*

**Reviewer C**

This review appears to be somewhat of a factual report, while I appreciate the effort of work for examining a large number of references. In my opinion, it requires major revision, especially some parts should be deleted or changed that are not related to head and neck malignancies.

The following suggestions should help to further strengthen the study.

1. Rationale and knowledge gap

You described “The outcomes of PM for metastatic head and neck 66 cancers using minimally invasive techniques as compared to conventional thoracotomy are yet to 67 be established.”, I don’t think so. Please provide a reference.

**Reply:** *available evidence would suggest that the outcomes of minimally invasive surgery for PM in patients with metastatic HNC is yet to be established. Kindly see lines 208 – 242.*

2. Methods

I think this part is inadequate. It needs to describe in more detail how the papers were extracted; you should describe the method of how many papers were selected out of 400,000. Otherwise, it may give the misconception that only convenient papers were selected.

**Reply:** *we agree with your observation and have addressed this concern.*

3. Discussion

I) The explanation of each reference is too long, and it is difficult to understand what you want to claim. It would be simple to understand if 2-3 bulleted summaries are provided for each part. For example, in the 3.3 part, it will be better to write the paragraph; line195-198 at the beginning as a summary of the item, so that it is easier to understand what follows.

II) The contents in 3.4 part are mostly reported in papers on other cancers and have no relevance to the main purpose of this paper, which is the review of pulmonary metastasis of head and neck cancer. It should be a comparison of VATS and thoracotomy open chest in lung metastasis of head and neck cancer. It is questionable whether head and neck cancer and colorectal cancer can be treated in the same way.

III) Please provide references in line 200-201, 206-208.

**Reply:** *we have addressed your concerns regarding the focus of the paper. The challenge here is that there is very limited data on outcomes of VATS vs thoracotomy for patients with HNC undergoing PM. The studies are just not available. That being said, it is likely that short term outcomes data (length of stay, chest drainage duration, and perioperative complications, etc) from studies on patients with colorectal or breast cancer primaries would be similar in patients with metastatic HNC. Nevertheless, available data that are specific to HNC have been reported in the paper. Please see lines 207 – 228.*

#### **Reviewer D**

The paper is well-written and presents data about commonly known practices.

1) I would strongly recommend doing the literature research by using the PRISMA guidelines

**Reply:** *The search strategy has been modified according to recommendations by the VATS editorial team.*

2) I would recommend changing the title, as it is misleading since it is not primarily about VATS

**Reply:** *The title has been modified too, and the content of the paper has been updated to reflect the title more accurately.*