

Peer Review File

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Review comments

Reviewer A

Comment 1: This is an interesting and generally well-written paper. The authors present their results of a systematic literature review regarding thoracoscopic pulmonary metastasectomy for lung metastases from esophageal cancer. Lung metastasectomy is a valuable therapeutic option for selected patients with lung metastases. Taking insufficient randomized data (mainly due to ethical reasons) into consideration alternative retrospective data are strongly needed.

In this regard, this paper covers two interesting problems:

1. The role of minimally invasive thoracoscopic metastasectomy.
2. Pulmonary metastasectomy for lung metastases from esophageal cancer.

In the discussion section several interesting points are emphasized (such as histology SCC vs. AC, risk factors, lymphnodes, anatomic resections and so on).

However, from my point of view the strength of the paper is the formulation of precise questions which are of interest in the clinical setting (1. The role of thoracoscopy and 2. Pulmonary metastases from esophageal cancer). Therefore, I would recommend to focus on these two topics in both the results and discussion section.

Table 1 should be elaborated on in more detail with respect to data concerning the surgical approach (for example it includes papers without information regarding the surgical approach). With respect to the title of the paper “Minimally invasive thoracoscopic approach to pulmonary metastasectomy for esophageal cancer” the authors should focus on comparing the results of the thoracoscopic approach with open surgery (and SBRT).

Reply 1: The authors thank Reviewer A’s insight. We attempt to address some of the issues raised here. We have made many major revisions to this manuscript, including adding a section at the end of the introduction to clarify that one of the objectives of this review is to discuss the role of thoracoscopy.

It was our intention to compare outcomes of VATS to open. The authors have emailed the authors of included studies for breakdown of VATS vs open in the in their studies to add to Table 1, but did not get any replies.

Another solution we can think of is to perform a meta-analysis to summarize existing studies that report either open, VATS or both approaches. We went through the existing studies again, and we find that the studies are heterogeneous in their quality and items reported. The result may not be as granular as we would expect.

Reviewer B

Comment 2: We congratulate the authors on writing this thorough review of the literature on local radical-intent treatment for pulmonary metastases of esophageal cancer.

We do wonder whether this review adds anything to the current level of evidence on this topic

Also, numerous sentences in the manuscript are understandable, but not correctly formulated.

Probably the limited number of original reports on the topic is representative for lack of benefit for the patient

Most of the content is applies for pulmonary metastases in general, not specific for esophageal pulmonary metastases

Reply 2: We appreciate Reviewer B's reflections after reading our manuscript. When we first started the literature review, we felt the same. What do we add to this topic, especially after the well written review of Schizas et al's systematic review of outcomes? We recently had a patient of our own with a possible solitary met after previous multimodality therapy with curative intent. We found ourselves asking many clinically questions that were not just about outcome. We attempt to share what we found from past literature on these questions, such as choosing the right operation (wedge, segment vs lobectomy), whether a mediastinal lymph node dissection should be done, how surgery compares to SBRT or thermal ablation, and technical challenges of doing VATS approach as opposed to traditional gold standard of thoracotomy approach, how to compensate for lack of tactile feedback with minimally invasive techniques. We believe that our review discuss these questions in the clinical context. With our current knowledge and surgical technology, we do not have the final answer to these questions. We present different schools of thoughts and emerging technologies that can address these issues and provide directions for future studies. In summary, the fact that there no evidence based consensus is valuable information for a clinician faced with this problem.