

## Peer Review File

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### Reviewer A

Thank you for giving me the opportunity to review this manuscript and video. I applaud the author's for safely performing an uniportal S3 segmentectomy of the right upper lobe.

I didn't understand the reason why the authors used both inflation/deflation technique and ICG to identify the intersegmental plane. Since the authors have successfully identified the intersegmental plane by inflation/deflation, they did not need ICG method for detection of the intersegmental plane. Also, since uniportal approach has limited vision and handling, the ICG method would be better than inflation/deflation method, since the lung remains deflated during the procedure. I believe that precise detection of the intersegmental plane by 'their double check method' is only necessary if the authors dissect the intersegmental plane with electrocautery and not by stapler, as in this case.

**Answer:** We usually use the demonstrated double-check method in order to confirm the division of the correct arterial branch as well as the correct segmental bronchus. In case of anatomic anomalies or if by a 'misjudgement' during surgery only a subsegmental branch for example of the artery was divided, this would clearly show when correlating the ICG method with the inflation/deflation technique. Like this we can assure that the surgery was exactly performed as planned. ICG injection also has the advantage to give a more accurate information about segmental margins especially in patients with extended lung emphysema. In those patients, collateral ventilation can lead to an underestimation of the segmental margins.

**Changes:** We introduced this explanation into our manuscript, see page 4, lines 77-83

In addition, although the authors described the perioperative results of S3 segmentectomy in their institute, I don't fully understand the authors' conclusion (for example their comparison to SBRT) because there was no discussion in this manuscript.

**Answer:** We simply wanted to point out that, since minimally invasive segmental resections are associated with a very low morbidity and mortality rate, surgery might be a better alternative to SBRT since we can also provide a complete histopathologic profile as well as better long-term tumor clearance compared to SBRT.

**Changes:** We modified the explanation on page 5, lines 108-109

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### Reviewer B

The authors reported the anterior (S3) segmentectomy of the upper lobe via uniportal VATS approach. This is not a new procedure since some reports on uniportal VATS segmentectomy had been published, and they include S3 removals in their series.

There is no precise international rule for the numbering of daughter branches of lung segment. However, subsegmentectomy is defined as pulmonary segmentectomy at the subsegmental (third

order) arterial and bronchial branches. Usually, S3 consists of posterior (S3a) and anterior (S3b) subsegments. It seems to me they removed only S3b and did not remove the total S3 in this video.

Answer: The title as well as the description in the text have been changed.

I understand that this S3b subsegmentectomy is more reasonable for this metastasis removal since it can preserve more lung parenchyma.

From this viewpoint, I advise them to change the title to S3b subsegmentectomy from S3 segmentectomy. If available, I suggest adding postoperative computed tomography data to make it clear whether there is a remnant B3a in this patient to make this point more straightforward.

They should add the movie of thin-sliced computed tomography to give the readers' better understandings of the branching of arteries and veins.

Answer: Good point, thank you. The CT scan has been added to the Video: Timestamp 00:29-00:45

How do they plan their operation? Do they only assess the axial images of computed tomography? They are advised to add their method of preoperative planning for segmentectomy.

Answer: At the time we only use multiplanar CT reconstructions for our planning, unfortunately we do not yet have a segmentation software available at our institution. In our experience this technique is sufficient to perform segmentectomy.

Changes: We also introduced this info in the manuscript, page 3 line 62 to 66