Author’s response to reviews

Title: Near-infrared dye marking for thoracoscopic resection of small-sized pulmonary nodules: comparison of percutaneous and bronchoscopic injection techniques

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03 January, 2018

Prof Vipin Zamvar,
Prof David Taggart,
Editors-in-Chief,
Journal of Cardiothoracic Surgery

Dear Editors:

On behalf of the co-authors, I thank you for the opportunity to revise and re-submit our manuscript titled, “Near-infrared dye marking for thoracoscopic resection of small-sized
pulmonary nodules: comparison of percutaneous and bronchoscopic injection techniques”. We also thank the Reviewers for their insightful comments, suggestions and questions, which we believe have helped to significantly strengthen our article. Several valid points were raised in the review and, after careful consideration, we have made the requisite revisions to the manuscript. Below, you will find our point-by-point responses to the Reviewers comments, questions, and concerns. Our revised manuscript, which was reviewed again to improve grammar and syntax, is attached as a separate document, with the corresponding changes highlighted in yellow.

We sincerely hope that our responses and revisions have adequately addressed the Reviewers’ concerns, and that our manuscript is now suitable for publication in the Journal of Cardiothoracic Surgery.

Thank you once again, we are grateful for the opportunity to be published in the Journal.

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Reviewer #1

Could you please specify how many lesions were greater than 1 cm, what was the smallest lesion size, and how much of them were solid lesion in each group.
We begin by thanking Reviewer#1 for critically appraising our work, and offering insightful comments and constructive suggestions to improve our article.

Response:

Thank you for your question, we regret the lack of clarity in this regard. Accordingly, we have added a description detailing tumour size, including maximal and minimal tumour size range, and the number of ground-glass nodules (GGNs)/solid lesions to Table 1.

λ. Could you please specify anatomic localizations of lesions via bronchoscopy and percutaneous marking (For example: right upper lobe 1/3 peripheral side of anterior segment)

Response:

Thank you for this suggestion. Accordingly, we have added a description detailing anatomical localizations of the lesions to Table 1. We also reported that all lesions in this study were located within the 1/3 peripheral side of lung (line 165).

λ. Could you determine duration of methods and cost effectivity for each groups

Response:

Thank you for this suggestion. We have added a description addressing duration in the Methods (lines 121/122, and 140).

Furthermore, we added text addressing cost effectiveness in the Discussion (lines 238-241).

λ. What was the radiological characteristics of two patients that was not able to achieved by bronchoscopic method (localization, solid component, which side).

Response:

Thank you for your question. We explain why bronchoscopic marking in these two cases was unsuccessful in the Discussion (lines 228-236).
Reviewer #2

Dear Author, This is an interesting study with valuable information. However, there are some points to be explained or corrected.

1. In the "methods" section, (line 99-101) it was written that CT-guided percutaneous marking was used in the first period of the study, and bronchoscopic marking in the following period. This is not clear. You should explain by which criteria you have switched from one technique to the other. In the line 195-196 it was written that "the choice of percutaneous marking or bronchoscopic marking depends on the localisation of the tumor and the number of markers to be injected". Is this a preference criteria in your study or a reference (if reference, this sentence necessitate a reference). If it is a selection criteria between both technique in your study, this is confusing, because according to table 1 there is no difference in the depth of the lesion between both methods.

We are grateful to Reviewer #2 for the kind words, thoughtful questions, and valuable suggestions to improve our article.

Response:

Thank you for pointing this out, you raise several valid points, and we regret the lack of clarity in this regard. We performed percutaneous marking only in the first period, and bronchoscopic marking was performed only in the second period. There was no difference in patient recruitment between two groups. We have switched from one technique to the other historically. We aimed to suggest that each technique has benefits so the readers can choose either according to the situation (i.e. the location of the tumour, the number of markers). Nevertheless, we have revised the description in the Discussion as follows (line 203):

Both percutaneous marking and bronchoscopic marking have benefits.

2. there are mismatching between the picture and legends of figure 2, figure 3 and figure 4. I think there happened an error in uploading process.

Response:

Thank you for pointing this out; we regret the error and have re-uploaded correctly.
3. The author mentioned that (line 138) "the surgical procedure was performed one day after the bronchoscopic marking". So, the author should also mention when they performed surgery following CT-guided marking, immediately after the procedure or not?

Response:

Thank you for this valuable suggestion. In consideration of the possibility of late-onset pneumothorax in the CT-guided marking group, the marking procedure was performed in the morning, and surgery was performed on the same afternoon. We have revised the text accordingly (line 123).

4. The sentences in lines 187-190, lines 195-196, lines 208-210, and lines 226-230 necessitate reference numbers (if they are not personal opinions).

Response:

Thank you for pointing this out. Accordingly, we have inserted a citation for lines 187-190 (line 203).

For lines 195-196, we revised the description upon reviewer's points (line 200 in the revised manuscript).

For lines 208-210, this text includes our opinion. It is a fact that a long needle must be inserted deep into the body to reach the mediastinum percutaneously. In such cases, a bronchoscopic approach may be better than a percutaneous approach. We revised the text and have added a reference from British Thoracic Society Guideline for lung biopsy (lines 219-224).

5. There is an error in Table 2. Pneumothorax rate in the bronchoscopic injection group was given as 0/22, but 20%. Is this correct? (it should be 0%).

Response:

Thank you for pointing this out, we regret the error and have revised the Table accordingly.