

# TRANSLATIONAL LUNG CANCER RESEARCH

## Peer Review File

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### Reviewer A

First of all I would like to congratulate you for your 2 impressive cases. My opinion when I read your article was: why to complicate something easy? Well, let me explain. If I had to perform the operation I would have done probably differently:

- bronchus: end-to-end anastomosis, the main reason was that you perform only one suture instead of 2 like in your case (with increased risk in both of dehiscence..) with closure of the right main bronchus and additional anastomosis on the trachea. We all know that the main bronchial stump is more at risk of dehiscence than a reimplantation of a lower bronchus...

- vein: You did not mention the maneuver of Hilar Release, which is the opening of the pericardium around the inferior lobar vein to avoid tension and mobilize the right lower lobe. By experience you can have 4 to 5 cm of mobilization and avoid reimplantation of the vein... I have done many cases like yours and had never the difficulty for the vein...

- Artery: I agree good idea for the difference of caliber but I have used bypass with pericardium or bovine graft, particularly on the right side, if there is not enough length.

My feeling is congratulations for your case because it worked and in highly special situation we can have this idea, but it should not be clearly recommended!

**Reply1:** Thank you so much for sharing your experience on these difficult cases. I agree with you that keep it as easy as possible. That is the best way to avoid unnecessary complications and difficulties.

**Bronchus:** We did want to do the end-to-end anastomosis at the very beginning, which you are right about that additional anastomosis leads to higher risk of dehiscence. But during the operation, we noticed that the diameter of right basil bronchus was smaller than the right main bronchus. Although bronchoplasty of the right basil bronchus is another feasible option, we decided to use end-to-side method to solve this dilemma. Both anastomoses were carefully sutured and patients were administered albumin and postoperative bronchoscopies to make sure the anastomosis were healing well without necrosis.

**Vein:** We did the hilar releasing maneuver and noticed the inferior vein would be angled if the bronchus anastomosis was performed. Therefore, we decided to do the autotransplantation to reconstruct the pulmonary vein.

Thank you so much for your suggestions and compliments.

### Reviewer B

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The authors have reported two successful cases of lobe and segmental autotransplantation to save the patient from a right pneumonectomy. These two cases are worth reporting, because this is not a common technique, and can be useful to remind the readership of this alternative to pneumonectomy when sleeve resections cannot be performed. I have the following specific comments.

Specific comments:

1.- Abstract:

1.1.- Method, line 44: where it says 'reconnected', it should say 'anastomosed'.

And line 51: where it says 'reconnection', it should say 'anastomosis'.

**Reply1: Thanks for the correction. We have revised the manuscript.**

**Changes in the text: Line 38, anastomosed; Line 45, anastomosis**

2.- Case 1:

2.1.- Line 94: what is the descriptor that defines cT4? Please, explain. Invasion of pulmonary artery or veins only qualify for T4 if the invasion is intrapericardial. After reading the whole text and watching the video, it is clear that the intrapericardial portions of these great vessels were not involved. Therefore, their invasion is not a criterion of T4. The proper T4 category should be defined, then, by tumour size or endobronchial location, as the tumours don't seem to invade other anatomic structures. Please, check this carefully and reclassify the tumours accordingly.

2.2.- Line 107: same comment as in 2.1.

2.3.- Line 108: where it says 'right upper and lower lobe sleeve lobectomy', shouldn't it say 'right upper and middle lobe sleeve lobectomy'?

**Reply2: Thanks for the corrections. We have revised the manuscript.**

**Changes in the text: Line 102, middle**

3.- Surgical technique:

3.1.- Line 127: where it says 'reconnected', it should say 'anastomosed'.

**Reply3: Thanks for the suggestion. We have revised the manuscript.**

**Changes in the text: Line 120, anastomosed**

4.- Figure 2: lines 3 and 5: where it says 'Reconnection', it should say 'Anastomosis'.

**Reply4: Thanks for the corrections. We have revised the manuscript.**

**Changes in the text: Line 244, anastomosis**

5.- Figure 4B: would it be possible to add the lung image of the basal segments in the right hand figure, as it is done in figure 4A? It would show the volume of the right basal segments once anastomosed to the trachea.

**Reply5: Thanks for the suggestion. We have added the new 3D constructed image of the right basal segment and also attached the postoperative X-rays to demonstrate the lung expansion in**

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figure 4.

Changes in the text: Figure 4

6.- It would be nice to add postoperative PA chest x-rays of both patients to show how well the right lower lobe and the right lower segments reexpanded and occupied the right chest cavity.

Reply6: Thanks for the suggestion. That would nice to show the PA chest x-rays. Unfortunately, there is a limitation of figures from the editorial board, since this article is a case report. We therefore try to demonstrate more technique-related figures. But I think your suggestion is very inspiring and practical. Thank you again. We will try to figure it out.

Changes in the text: Figure 4

