

Peer Review File

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Reviewer A

Thank you for sending us this case report. It shows the heroic battle of patient after lobar lung transplantation.

Question A1: Were these right upper and middle lobes and left upper lobe implanted in place of the whole recipient native lungs?

Reply A1: According to the text from Line 124 to 125, those pulmonary lobes were transplanted for the recipient.

Changes A1 in the text: Line 147.

Question A2: Was the recipient then for half a year under mechanical ventilation?

Reply A2: We stopped mechanical ventilation for this patient until to the post-transplantation 6th month as the description on the Line 140.

Change A2 in the text: None.

Question A3: Was tracheostomy performed?

Reply A3: We performed the tracheostomy and showed it in the figure.

Change A3 in the text: Line 165-166.

Question A4: How does the patient does now?

Reply A4: Until to last month (May 2023), the patient completed routine of post-transplantation follow-up in the outpatient clinic. No adverse events after discharge were reported.

Changes A4 in the text: Line 168-170.

Question A5: Are there any long term complications?

Reply A5: Same to Reply4.

Question A6: Please, describe each complication more thoroughly.

Reply A6: Thank you for this suggestion. We added more details.

Change A6 in the text: Line 151-155, 159-161.

Question A7: Do this centre perform lung transplantation routinely? Please, concentrate more on complication treatment.

Reply A7: No, we are trying our best to perform it as a routine in future.

Change A7 in the text: Line 193-195.

Reviewer B

This is a rare case report on lung transplantation for acute fibrinous and organizing pneumonia. I have some comments.

Comment B1: The authors should describe transplant techniques, especially bronchial anastomotic technique, more in detail, because they experienced bronchial anastomotic complications. Please describe which parts of donor and recipient bronchus were anastomosed? Did they leave the donor or recipient

bronchial stump?

Reply B1: Thank you. But we have to mention that this case report focused more on the treatment of acute fibrinous and organizing pneumonia when compared to the surgical skills on lung transplantation. And we leave both bronchial stumps.

Change B1 in the text: Line 213-214.

Comment B2: The authors should describe the bronchial anastomotic complications in more detail. Did they have bronchial complications in the right or left side? If they had pictures of bronchial anastomosis, could they please add the pictures?

Reply B2: Bronchial complications happened in the left side. The picture was put in the figure.

Change B2 in the text: Line 160.

Comment B3: The bronchial anastomotic stenosis and fistula occurred on post-transplant early days, and thus those could occur mainly due to technical issues. They should discuss about the technical cause and solution to prevent bronchial complications.

Reply B3: Thank you for comments, these bronchial complications indeed have associations with the surgical technique. But we want to report this case for adding evidence to treat AFOP by lung transplantation. Furthermore, we should present shamed that we are improving our techniques in the programs of lung transplantation since we just start this program as a routine around two years ago.

Change B3 in the text: same as B1

Comment B4: There are a lot of English mistakes, so could the authors ask an English native language expert to check the paper to ensure correctness of the spelling, grammar and syntax?

Reply B4: It was done.

Change B4 in the text: Many parts in the manuscript.

Reviewer C

This manuscript by authors from the Medical University of Fujian, Fuzhou, China describes a challenging case report of a rescue bilateral lobar lung transplantation in a 33-year old female patient with acute respiratory failure related to a severe pneumonia described as AFOP.

Despite a very stormy postoperative period with multiple life-threatening complications, the patient finally survived and could be discharged from the hospital 10 months later.

The authors should be congratulated with the final outcome in this successful rescue lung transplantation.

Major comments:

1) ARDS:

The acute syndrome “AFOP” resulting in respiratory failure can be classified as a form of Acute Respiratory Distress Syndrome (ARDS). Some recent papers on urgent transplantation for ARDS have been published discussing the selection criteria and indications for transplantation. ARDS during the COVID-19 pandemic became even more a new indication for transplantation in well-selected patients. It is very important to select the best cases.

- the authors should discuss in their paper ARDS as an overarching term of acute lung failure (including AFOP) as an exceptional but possible life-saving indication for lung transplantation by referring to some recently published papers:

Lung Transplantation for Acute Respiratory Distress Syndrome. Bharat A, Hoetzenecker K. Thorac Surg Clin. 2022 May;32(2):135-142.

Lung transplantation for acute respiratory distress syndrome. Hoetzenecker K, Schwarz S, Keshavjee S, Cypel M. J Thorac Cardiovasc Surg. 2022 Feb 23:S0022-5223(22)00220-3.

Lung transplantation for acute respiratory distress syndrome: A multicenter experience. Frick AE, Gan CT, Vos R, Schwarz S, Kraft F, Kifjak D, Neyrinck AP, Van Raemdonck DE, Klepetko W, Jaksch P, Verschuuren EAM, Hoetzenecker K. Am J Transplant. 2022 Jan;22(1):144-153. doi: 10.1111/ajt.16759.

Reply C1: Thank you for your detail comments with recommended references. Change C1 in the text: Line 196-200.

2) What was the cause leading to AFOP in this patient?:

Did the authors identify the cause of AFOP in their case? Was a viral or bacterial infection excluded? Was a SARS-CoV2 viral infection excluded?

- the authors should discuss in more detail their diagnostic work-up (lab results) in this patient to investigate and discuss the possible underlying cause of acute respiratory lung failure in their patient.

Reply C2: Good comments but until now we can not ensure what is the trigger of AFOP to this patient. Thus, in the text, we mentioned that we diagnosed is according to pathological and histological evidence.

3) Donor characteristics:

The authors describe that lobar transplantation was needed because of size mismatch. However, no donor characteristics were given.

- the authors should describe the characteristics of the (lung) donor used in this case: age, gender, length, weight, cause of death, donor type (DBD or DCD), time on ventilator, P/F ratio, smoking history,

Reply C3: Thanks for your comments.

Change C3 in the text: Line 145-146.

4) English grammar:

With all respect for the difficulties experienced in writing a paper in another than the native language, the English grammar of the manuscript is poor with many missing words. The manuscript should be re-written by a linguistic expert in the English language.

- Especially, the abstract needs to be completely re-written as currently the text is hard to follow when reading.

Reply C4: Thanks for your comments.

Change C4 in the text: Abstract.

Minor Comments:

5) Typo's:

- ECOM: the term "ECOM" is used by mistake throughout the manuscript. This should be "ECMO".

- please correct as needed.

Reply C5: Thanks for your comments.

Change C5 in the text: All "ECOM" replaced by "ECMO".

Reviewer D

Thank you for the opportunity to review the article "Lesson of urgent lobar lung transplantation for acute fibrinous and organizing pneumonia: a case report and review of the literature." In this article, the authors describe a lobar lung transplant performed to treat AFOB. The reviewer intends to provide constructive feedback to the authors and contribute to the research.

There are a few comments listed as a sequence (see below):

Question D1: You should improve your writing as there are many issues you can easily solve, like "the patient remained challenges with carbapenem...". But simply using spelling and grammar could undoubtedly improve the writing. Please be diligent before submitting the article.

Reply D1: Thanks for your comments.

Change D1 in the text: Same as B4 and C5.

Question D2:

Introduction: You can improve the message you want to pass by better characterizing the disease, what happens in the acute and subacute types, for example. What percentage of patients evolve in the most severe disease patterns? For the general reader, it is essential to understand AFOB well.

Reply D2: Thanks for your comments.

Change D2 in the text: Line 107-108.

Case report:

Question D3: When you describe the patient, what is the size, TLC, and rationale for a lobar lung transplant?

Reply D3: Thank you for this good question. In the text, we have mentioned that the lobar lung transplantation was applied due to the donor lung is larger than the receipt's thorax.

Question D4: Please add a reference in line 111, "AFOB can be diagnosed," with the criteria you used.

Reply D4: Thanks for your comments.

Change D4 in the text: References.

Question D5: Did you wean steroids after starting VV ECMO so that the transplant could be performed safely?

Reply D5: No, we continue to use it.

Question D6: Why only two weeks on VV ECMO, as we see now that for COVID-19, longer times are needed to assess potential lung recovery?

Reply D6: Based on our experience, we perform it. In the next step, we will further analyze relevant data.

Question D7: You described the complications as a list. Instead, you should describe it as a sequence of events and give more details for the reader. How much airway stenosis? POD of bronchopleural fistula? PGD rates? More information about your reperfusion syndrome?

Reply D7: Thank you.

Change in the text: Line 152-154.

Question D8: Which side you had bronchopleural fistula?

Reply D8: Left side.

Question D9: Please comment that patient was discharged from the general thoracic unit and transferred to rehab, as MV was discontinued by the 6th month.

Question D10: Figure 1 is really good and helpful.

Reply D10: Thank you.

Discussion:

Question D11: Did the authors do the lung transplant using any mechanical support? Please clarify your intraoperative strategy and how this can relate to the outcome/difficulties found.

Reply D11: We use common cardiopulmonary bypass. This case report did not focus more on the transplantation technique rather than treatment to AFOP.

Question D12: Please discuss lung transplantation for etiologies that may be similar to AFOB, like COVID and ARDS. This parallel is important.

Reply D12: Thank you. It is same as C1.

I hope my comments are helpful and aim to improve clarity and bring relevant information to the reader. For now, a significant major revision should be done to send a better message to the reader. Please be mindful of your writing, as some minor mistakes are easy to fix. Thank you for the opportunity to review your article.

Best wishes in your future endeavors.