

## Peer Review File

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### Review Comments

#### Reviewer A

Thank you for providing me a chance to read this review article regarding the evolution of lung transplantation.

I could understand the entire history of lung transplantation through this review. The improvement of outcome after lung transplantation is based not only on surgical techniques including the support of mechanical circulation, better understanding of the immune reaction, but also on patient selection criteria, nutrition support, and physical rehabilitation.

In this review, the entire history of lung transplantation was completely covered, however it would be better to add some figures and pictures for readers to comprehend the history of surgical techniques and the actual EVLP system intuitively.

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled "Narrative Review of The Evolution of Lung Transplant" the suggestions were included in the revised article, and we believe that this has resulted in an improved well-rounded review.

Sections on other aspects of lung transplantation including donor selection, LAS scoring system, recipient selection criteria and immunosuppression, and the transplant team concept were Added to the article along with figures.

Pages 9-17

#### Reviewer B

Thank you for giving me the opportunity to review the manuscript entitled "The Evolution of lung transplantation". This is a well-written manuscript. In general,

the authors have included all major aspects in the history of lung transplantation.

I have identified some mistakes dealing with the names of surgeons cited. It is of paramount importance to write down the correct names, especially in a historical manuscript.

Some mistakes are as follows:

- Vladimir Demikhov instead of Valdimir Demikhov
- Fritz Derom instead of Fretz Derom
- Reitz instead of Rietz
- Patterson instead of Paterson
- ECMO support (line 144) instead of ECOM support
- PGD (line 174) instead of PDG

Figure 1:

- Noirclerc instead of Noirclerk
- Reitz instead of Rietz
- Toronto instead of Toronot
- Egan instead of Eagan

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled "Narrative Review of The Evolution of Lung Transplant" the suggestions were included in the revised article, and we believe that this has resulted in an improved well-rounded review.

Correction of typo and other errors was performed.

### **Reviewer C**

The reviewer is honored to review a review article about the history of lung transplantation. The manuscript is well written about the evolving history of lung transplantation in the world.

However, there are many typo and grammatical errors. Please check this

manuscript again with an English editor. For example, “Lung Transplant” should be “Lung transplant” (Line 36), and “CDC” should be “DCD” (Line 171). “CBP” should be “CPB” (Line 136). Figure (1) should also be Figure 1. “VV ECMO” and “VV-ECMO”, which is correct? (Line 142 and 145, etc.) “VA ECMO” and “VA-ECMO”, which is correct? (Line 147 and 150). ECMO should be spelled out at the time of the first use in the text (Line 130). Further, “has” should be “have” (Line 120).

After a careful English edition, the reviewer would say that he would check the manuscript again.

In terms of the other major surgical technical achievement, the reviewer would say the sophisticated technique of the living-donor lobar lung transplantation (LDLLT) by the Kyoto team, such as inverted right-to-left LDLLT and native lung sparing LDLLT.

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled “Narrative Review of The Evolution of Lung Transplant” majority of the suggestions were included in the revised article and we believe that this has resulted in an improved well-rounded review.

Correction of typo and other errors was performed. Kyoto team was credited their excellent work Please refer to page 6

“The concept of inverted lung transplantation was first described in cadaveric lung transplantation by Jean Paul Couetil and Alain Carpentier team in 1997 [19-20]. However multiple nonstandard configurations of LDLLT as single lobe transplants, native upper lobe sparing, inverted along with combine sparing and inverted lobes could be credited to Hirsohi Date and Kyoto University team (21,22)”

## Reviewer D

I read this review manuscript with great interest.

It would be better if the authors could add some unique or original insights, besides of the numerous series of reviews and book chapters highlighting the historic landmarks as well as ongoing evolution in techniques and technologies of lung transplantation that have been published to date.

The current manuscript attempts to cover such a broad topic that eventually it appears to fail to duly introduce the up-to-date findings and get ahead of the next stage in this evolving sub-specialty of lung transplantation. For instance, while the authors appear to be focused on technical aspects of lung transplantation, the evolution in transplant immunology including newer non-invasive biomarkers that contribute to early identification of CLAD via microarrays or high quality RNA sequencing is also so outstanding that their progress should be elaborated as 'milestones' in lung transplantation. How did the authors choose those 'milestones'?

I'd like to advise the authors to re-discuss their focus that will be instrumental in bringing the future directions to lung transplantation in Asian countries through this review manuscript among the group and rewrite it in light of previously published many excellent series of review articles elaborating on history as well as future directions synchronously.

Thank you for this privilege.

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled "Narrative Review of The Evolution of Lung Transplant" majority of the suggestions were included in the revised article, and we believe that this has resulted in an improved well-rounded review.

Section of immunosuppression among other aspects of lung transplant evolution were added, same for the newer noninvasive CLAD biomarkers (pages 11-13)

The original intent of this article was to introduce our readers to this special

series focusing on lung transplant and to honor the scientists, researchers who significantly contributed to this field, we tried to avoid repetition and the overlap with other articles in this special series focusing on lung transplant, other articles in the series will be covering the up-to date advance in immunology of different article focusing on the up-to date lung transplant

## **Reviewer E**

This manuscript mainly focused on the history of lung transplantation. I have some comments as follows:

Comment 1: The authors have described the historical major events in lung transplantation chronologically. However, overall, the content is not well organized. As they mentioned in the abstract, the advancement of lung transplant has been multifactorial, so they had better focus on some favorable factors.

Comment 2: I also recommend that they create separate sections, such as (1) the history of surgical techniques, (2) the history of organ donation including brain-dead donor, living-donor, and DCD, (3) the development of organ preservation, including cold preservation solution and EVLP, and so on.

Comment 3: There are a lot of English grammar and word mistakes. The authors should ask an English language expert to check the paper to ensure correctness of the spelling, grammar and syntax.

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled "Narrative Review of The Evolution of Lung Transplant" majority of their suggestions were included in the revised article and we believe that this has resulted in an improved well-rounded review.

Comment 1: multiple sections on evolution of other aspects of lung transplant as donor selection, LAS scoring system, recipient selection criteria and immunosuppression were Added, along with OCS pages (9-17)

Comment 2: reorganized as advised thank you.

Comment 3: Correction of typo and other errors was performed.

## Reviewer F

My co-author and I would like to thank the reviewer for his/her valuable insights and comments regarding our manuscript entitled "Narrative Review of The Evolution of Lung Transplant" majority of the suggestions were included in the revised article, and we believe that this has resulted in an improved well-rounded review.

1. This manuscript focuses on the history of lung transplantation worldwide, which will be helpful for healthcare providers to better understand its development. However, there are some spelling and grammatical errors in this manuscript that need to be corrected.

Correction of typo and other errors was performed.

2. This manuscript is rich in content, but somehow chaotic in structure. We suggest that this manuscript be better organized in terms of the progresses in preoperative, operative and postoperative phases of lung transplantation, respectively.

Modifications were done in this aspect following the lab and experiment time, clinical and surgical evolution, followed by (newer technology as ECOM, EVLP, OCS), then the other aspect of progression as immunosuppression, LAS scoring system , donor selection and recipient selection evolution. Followed by transplant system organization development. Pages (11-17)