Reviewer’s report

Title: MORBIDITY AND MORTALITY RELATED TO PNEUMONIA AND TRACHEOBRONCHITIS IN ICU AFTER LUNG TRANSPLANTATION

Version: 0 Date: 24 Oct 2017

Reviewer: Vikram Balakumar Balakumar

Reviewer’s report:

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Introduction

- While the authors mention about the incidence of post-LT VAP and the existing knowledge of the high morbidity and mortality with pneumonia, they fail to mention what more knowledge they wish to add by the aim of their study.

Methods

- Did the study population include adults only or both adults and pediatric patients

- Under microbiological samples (page 5, line 51-65) can the authors state why they routinely obtain samples specifically, 6 months before transplantation - is that a common institutional practice? When are the pretransplant tracheal bacterial samples obtained?

- Under Definitions of BRI (page 6, line 29) can the authors state what cutoff they used when they mentioned 'decreased PaO2/FiO2 ratio’?

- Page 7, line 15 - can the authors state how they calculated the primary graft dysfunction score?

Results

- Page 8, line 39 - To avoid confusion, can the authors remove the percentage in the brackets. When reporting results, it is difficult to follow if the percentages are being reported un-uniformly. In the previous paragraph, the percentages were in comparison with the overall population while here they are in comparison with a particular subgroup.
Discussion

- In page 11, lines 30-31 The authors cannot assume the reason for low rate of donor BRI from donor colonized micro-organisms based on evidence that is not shown.

- Based on figure 1, it's interesting to see that most cases of pneumonia are from species unrelated to donor or recipient colonization - can the authors explain the significance of this finding? Is this seen in other studies in lung transplant cohorts?

Tables and Figures

- In Table 2, under column Bacterial species involved in pneumonia can the authors express the percentages of each bacteria as an expression of total species (i.e. 51 as a denominator) and not separately for gram positive and gram negative - currently it appears quite confusing to the reader.

- In Table 3, the purpose of differentiating the various species between donor and recipients bronchial colonization is not clear. While comparing such a wide range of species in donors and recipients, there is bound to be some statistical significance - what is the clinical significance of this analysis?

Overall: excellent job of doing a thorough description of methods of the study and addressing all adequate limitations. However, the authors spend a lot of time describing already well known facts regarding the association between pneumonia and mortality and the clinical challenges of diagnosing pneumonia in this population - they can focus more on describing interesting unique findings in their study that adds value to the field.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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