Reviewer’s report

Title: The role of HIF-1α-VEGF pathway in bronchiolitis obliterans after lung transplantation

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Reviewer: Lavinia De Monte De Monte

Reviewer's report:

This is an interesting paper on the role of HIF-1, VEGF-A and VEGFR-2 in a rat BOS lung transplant model.

First of all I would suggest revising medical English, for example:

- Page 2, line 21 "Graft function may be affected if the organ is exposed to hypoxia"
- Page 6, line 86 "Recipients of all groups received"
- Page 7, line 111 "Tests were performed with the Pearson's"
- Page 8, line 127 "Lung fields appeared clearer"
- Page 8, line 137-143: please reword the entire paragraph, it is very difficult to understand
- Page 9, line 161-169: please reword the entire paragraph, it is very difficult to understand
- Page 11, line 192-198: please reword the entire paragraph, it is very difficult to understand
- Page 11, line 208-211: please reword the entire paragraph, it is very difficult to understand

In the background section:

- Please comment on the role of HIF-1, VEGF-A and VEGFR-2 as a target for potential treatment strategies.
- Please clarify the role of HIF-1, VEGF-A and VEGFR-2 during hypoxemia and transplantation.

In the methods section:

- Please clarify some technical details such as graft ischemic time and type of donor graft perfusion.
In the results section:

- Can you explain the meaning of a repeated CT on POD 27 and 30?
- Please add p-values when you report measurements from the different groups.
- Page 10, line 173: this sentence needs to be moved to the methods section.

In the discussion section:

- I would expand on the role of HIF-1, VEGF-A and VEGFR-2 in acute and chronic lung injury; this is the key concept of the paper and would deserve a more detailed description.
- I would improve the background on the pathophysiology of HIF-1.
- I would improve the description of the relationship between HIF-1 and airway disease (large vs small).

Table 1: please expand the legend and clarify subgroups.

**Level of interest**
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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