

**Dear editor and Reviewers:**

Thank you for your letter and for the reviewer's insightful comments concerning our manuscript entitled "Cardiopulmonary Bypass combined with lung injury: Alternative treatment prospects" (Manuscript ID: 70667). Those comments are all valuable and very helpful for revising and improving our paper. We have carefully taken the reviewer's comments into account and have made corrections, hoping to meet with approval. We hope this revision can make our paper more acceptable. The corrections were addressed point by point below.

**Respond to the comments of Reviewer 1:**

1. Title: the phrase 'Cardiopulmonary Bypass combined with lung injury' is misleading or confusing- Do you mean Lung injury after CPB or CPB associated Lung Injury?- I suggest to modify the title to be clearer?

**Response:** Thanks for your constructive comments. According to your suggestions, we have modified the title to be clearer.

2. Abstract: As stated in the title- I suggest using the term Lung injury following CPB or CPB associated Lung Injury in place of Cardiopulmonary Bypass combined with lung injury throughout the manuscript.

**Response:** Thanks for your advice. Your suggestion means a lot to us. Yes, it would be more understandable if we make it clear and adopt a uniform term throughout the manuscript.

3. Keywords: Acceptable but encouraged to use MeSH words Core tip: Respiratory lung dysfunction.... Keep either respiratory or lung – not both the words.

**Response:** The respiratory dysfunction has been modified based on your comments.

4. Introduction: Explain the full forms whenever an abbreviated form appears for the first time, e.g. CPB, I/R, ARDS. Language editing- Byrne J et al.[13] demonstrated that pretreatment with could Intralipid attenuate lung ischemia reperfusion intestine injury in rats. ... This, in turn, leads to an endothelial cell swelling, plasma and proteins extravasation into the interstitial tissue, aggregation of PMNs and macrophages at the injury site, and, finally, impede intra-alveolar cellular perfusion and oxygen exchange, causing lung injury. ... Suggestion to change to - These, in turn, leads to an endothelial cell swelling, plasma and proteins extravasation into the interstitial tissue, aggregation of PMNs and macrophages at the injury site, and, finally, impedes intra-alveolar cellular perfusion and oxygen exchange, causing lung injury.

**Response:** Response: Thanks for your advice. We had explained the full forms of the abbreviated form and rephrased the sentence according to your suggestions.

5. Discussion, Need to include the dose of Intralipid used, their side-effects especially on blood glucose level and possible limitations of such hyperglycemia in surgeries like on-pump CABG.

**Response:** Thanks for your advice. We had added the information according to your

suggestions.

6. References: Please follow journal style / instruction.

Response: Thanks for your advice. We had changed the references style following journal style.

## **Respond to the comments of Reviewer 2:**

### **Major remarks:**

1. Please include the section Methodology in your paper, where the type of your study (review, probably this is the narrative review), name of the investigators who screened an available literature (only English or other languages also), name of the investigator who approved the final list of included literature in your work, time period of screening literature, and similar information's.

Response: Thanks for your careful checks. We had added the information of Methodology according to your suggestions.

2. Furthermore, recent articles demonstrated the benefit of preoperative administration of corticosteroids on cognitive outcome after cardiac surgery based on the attenuation of inflammatory response with possible implications on the some other significant postoperative outcomes when the adequate type of corticosteroids with prolonged effect, adequate dose to avoid toxic effects on neural structures, and well-timed administration to provide anti-inflammatory effects throughout the early perioperative period is used (Glumac et al. Eur J Anaesthesiol 2017 and Glumac et al. BMC Anesthesiol 2021). Therefore, these findings should be addressed in your paper.

Response: Thanks for your advice. We had added the information according to your suggestions.

### **Minor remark**

MECHANISM OF CPB COMBINED WITH LUNG INJURY Systemic inflammatory response syndrome (SIRS) typewriter error: e.g., , histamine (Please correct it)

Thanks for your careful checks. We are sorry for our carelessness and correct the typo.