Author's response to reviews

Title: Oxygen Carrying Capacity of salvaged blood in patients undergoing off-pump coronary artery bypass grafting surgery: a prospective observational study

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Author's response to reviews: see over
**Dear editors:**

I had revised my articles according to reviewer's advises. The style of the article also had been revised to conform to the journal style. Below is the point-by-point response to the reviewer’s concerns.

Many thanks!
Xiuliang li.

**Harikrishna Doshi’ report**

1. Authors must be commended on the article which clearly demonstrates an advantage of cell salvage over stored blood.
   - The third paragraph of discussion had been rewrited and demonstrated an advantage of cell salvage over stored blood.
2. The authors must use tables for presenting their results on page 4 and beginning of page 5.
   - I had replaced the figure 1 and figure 2 with the table 1 and 2.
3. The authors have mentioned very high range of values for example the level of 2,3 DPG at 4 hours in salvaged blood shows a value of 15.17 +/- 11.61 and similar higher values have been quoted for all salvaged blood samples for 2,3 DPG. Can they clarify as to how these can remain valid? One of the explanation is the small sample size and if so they should clarify that in the report which leaves door open for future larger case studies to draw conclusions.
   - I agreed with Harikrishna Doshi. The small sample size of the article may result in the higher standard deviation of 2,3-DPG value. I had added this explanation in the revised article.

**Bobby Yanagawa’ report**

1. Abstract: The values for $P_{50}$, 2,3-DPG and free Hb should be given, not just the $P$-value. The conclusion is grammatically incorrect and difficult to follow.
   - I had rewrited the results of the abstract. The values for $P_{50}$, 2,3-DPG and free Hb had been given. The conclusion also had been rewrited in the revised manuscript.
2. Introduction: Add allogenic red blood cell "transfusion"
   - I had added "allogenic red blood cell transfusion" in the introduction.
3. Introduction: Reference markers should generally be at the end of the sentence.
   - I had placed all reference markers at the end of the sentence.
4. Methods: define OPCAB and use "OPCAB", not "OP-CAB"
   - I had define OPCAB and replaced "OP-CAB" with "OPCAB" in the revised manuscript.
5. Methods: The authors are correct in stating that various cell savers have different washing and hemoconcentration protocols. Please provide details for the cell saver used here.
   - I had provide details for the Dideco Electa device used in this article.

6. Methods: For blood, please confirm whether this was whole blood vs packed red blood cells. If packed RBCs, please provide protocol including centrifugation, washing, leukoreduction, citrate concentration, etc.
   - I had clearly clarified the details of 2-week-old banked RBCs used in the revised manuscript.

7. Results: Do not present the potassium levels of salvaged blood as % but as values with p-values. Otherwise, it is impossible to compare these to the values for banked blood.
   - I had corrected this fault in the revised manuscript.

8. Results: Give the p-values, not p<0.05 or p>0.05.
   - I had corrected this fault in the revised manuscript.

9. Figure 1: define the groups 1-7. What are the bars and circles. This is very confusing. What is A and B vs mean values? The data in the figures is organized into groups but this is not the case in the results section. Please keep this consistent and use Groups 1-7 or just define the groups.

10. Figure 2: There are 2 copies of the same figures.

11. Figure 2: Please label the X-axis and use the proper numbering. You must redefine the groups as it is difficult to return to the Figure 1 labels just to understand Figure 2.
   - I had replaced the figure 1 and figure 2 with the table 1 and 2. This may be easily understood.