

Peer Review File

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Reviewer A

The authors aimed to assess predictive and prognostic values in patients undergoing the hybrid coronary revascularisation (HCR). They collected various clinical and laboratory variables and determined, mainly, postoperative pulmonary complications (PPCs). However, the following issues should be addressed:

1. Line 45: The references 1 and 2 are not in line with the statement in the text.

Reference 1 and 2 should be cited on line 61 of the text.

Reply: We have unified the description in the article with the references. (see page 3, line 61)

2. Line 45: The whole paragraph on the coronary revascularisation should be rewritten to get rid of the redundant text.

Reply: We have condensed this paragraph. (see page 3, line 61-75)

3. Line 138: The Melbourne Group Scale was used for determining the PPCs; however, the precise set of data used for PPCs prediction was not described. Moreover, the prognosis of the HRC patients as promised in the paper's title was not studied: Perhaps, addition of the Kaplan Meier curves of the ACEF scores could help the authors predict the outcomes.

Reply: Thank you very much for your valuable advice. The lack of accurate predictive data set and the collection of prognostic indicators are the shortcomings of this article. We will definitely take these factors into account and apply the analytical method you suggested when we expand the sample size for further analysis in the future.

4. Line 152: The data explaining the extent of coronary revascularisation performed by the associated PCI are critically missing. Moreover, the one-lung ventilation depends more on off-pump LAD surgery than on additional PCI.

Reply: Since most PCI operations only intervene 1-2 coronary arteries, the difference is not significant, so we did not include this part in the design of the experiment, which is our negligence. The time of single lung ventilation is indeed independent of PCI time and only depends on the time of coronary artery bypass.

In summary, the paper was able to determine the rate of pulmonary complications after cardiac surgery with no regard to additional PCI associated with HCR. Moreover, the PPCIs-related short/long-term prognosis assessment was not attempted.

Reviewer B

I have to commend the authors for an interesting and well written manuscript.

I have some minor comments:

1. Your single lung ventilation time in both groups seems with 180 minutes rather long, as you only need it to take down the LITA and perform the LITA-LAD anastomosis. As soon as the anastomosis is performed you can switch to ventilating both lungs for the rest of the HCR procedure. Would you care to comment on that?

Reply: The single lung ventilation time is indeed relatively long, because the cardiac surgery team in our center rarely performed small incision bypass surgery before the HCR operation, and the proficiency in this operation was insufficient, so the surgical intervention time was extended.

2. Do you have a fast track protocol for these patients? Does it include extubation while still in the operating theatre?

Reply: We do currently plan a fast track protocol for HCR patients, including extubation while still in the operating theatre and thoracic paravertebral nerve block to assist with analgesia. But this plan has not yet been initiated.

3. In your highlight box under 'what is the implication, and what should change now?' you give a rather broad and vague answer. Please elaborate and be more specific!

Reply: We have added the corresponding content, see details in the highlight box.

4. Table 2, FiO₂%, for sure you meant 60 and not 660.

Reply: Yes, it should be 60. We have made the corresponding changes in the table2.