

Response to Reviewers` comments

We would like to thank the Reviewers for their thoughtful comments that helped to improve our manuscript.

Reviewer 1:

Would recommend to discuss further the role of AKI and to use the context of transplant where has been fully studied. Please quote as follows: Histopathology and Long-Term Outcome of Kidneys Transplanted From Donors With Severe Acute Kidney Injury. Prog Transplant. 2019 Mar;29(1):36-42. doi: 10.1177/1526924818817054. Epub 2018 Dec 13. PMID: 30832558

A very interesting study has been suggested by the reviewer, which focuses in the outcomes of transplant recipients that received kidneys with AKI. However, we decided not to include the study in our references as we think that the findings and the conclusions could not be implemented in patients undergoing cardiac surgery for various reasons.

We studied the risk factors for AKI development as well as the effect of AKI, during their ICU stay mostly, on non-renal outcomes like mechanical ventilation, length of stay or delirium, weakness and mortality. In contrast, the study suggested investigates the recovery of renal function itself and rejection rate after transplantation of kidneys with AKI.

Moreover, it does not refer to outcomes regarding mortality or morbidity. As discussed in our manuscript, patients undergoing cardiac surgery that develop AKI have worse short and long term outcomes, even if they fully recover from AKI. Different mechanisms seem to be involved and probably not the intrinsic capacity of the kidney to repair itself, a mechanism that may explain the comparable 2-year rejection rate between recipients that received kidneys with AKI or non-AKI.

Also, we did not perform kidney biopsies for histopathologic determination of AKI severity and unfortunately, we did not include patients with renal transplantation that had cardiac surgery.

Reviewer 2:

Title Please add the type of the study in your title.

Incidence and peri-operative risk factors for development of acute kidney injury in patients after cardiac surgery: a prospective observational study

Introduction Usually, first it goes the aim than the hypothesis of the study.

We made the appropriate changes as suggested by the reviewer

Materials and Methods. Please state in this section what types of cardiac surgery were included in your study. Based on Table 1, I could see that you included all types of cardiac surgery, including heart transplant in your research. Did you include heart-beating surgery, or the all procedures involved CPB. This must be stated in the text.

In our study we included all types of cardiac surgery occurred during the 3 months study period, including heart transplantation; however, we did not have any case of beating – heart surgery. We included this statement in the results.

Statistical analysis. Please state what method of multivariate logistic regression (Forward, Enter,...) you have performed.

We added the method “Enter”

Results. Clinical characteristics. In the first sentence please add the time period when the study was conducted.

Information was added

Discussion. Limitations. The major limitation of your work is that you have investigated the association of different cardiac surgical procedures and occurrence of ACI, which makes your sample size even more underpowered. This must be stated.

Statement included as requested