Reviewer’s report

Title: Adjudication of Etiology of Acute Kidney Injury: Experience from the TRIBE-AKI multi-center study

Version: 2 Date: 2 April 2014

Reviewer: Josée Bouchard

Reviewer’s report:

Dr. Koyner and colleagues performed a nested prospective cohort sub-study of the multicenter prospective TRIBE study on the adjudication of 67 cases of acute kidney injury (defined by RIFLE Risk over 5 days) following cardiac surgery. Adjudication was based on all available information (creatinine and clinical variables without biomarkers values and urinalysis microscopy data).

Comments

1. Why did the authors choose to look at only 400 of the 1199 patients enrolled in the TRIBE study? They could have included all adult cases of AKI regardless of risk factors.

2. It is not clear in the abstract what was the time period used by the adjudicators to complete the adjudication process. Some might think that it was 24 hours while the authors mentioned in the manuscript: All patients who developed post-operative AKI had their entire case report form and hospital course independently retrospectively reviewed by a panel of 3 independent academic nephrologists.

3. The authors should defined more clearly what is included in the ‘all available information’ to assign an AKI diagnosis of ATN, PRA or indeterminate. The authors mentioned creatinine kinetics, urine output, volume responsiveness, management of hypotension, and cardio-pulmonary bypass time. This is of critical importance to understand the adjudication process.

4. It seems that the adjudicator #3 diagnosed many more cases of PRA and less ATN than the 2 others. What was the agreement between pairs of adjudicators? What was the mean/median duration of AKI for PRA and ATN by the 3 adjudicators?

5. Biomarkers values were relatively similar (regardless of p values) between PRA and ATN (except for IL-18). These results are in contradiction with previous reports from Soto CJASN 2010 and Nickolas JACC 2012/Nickolas Ann Intern Med 2008, which more clearly defined PRA and ATN. For example, Nickolas included a time frame of 3 days to distinguish PRA and ATN.

6. The authors reported to include 400 patients in the abstract and then 475 patients in the manuscript.

Minor comments
1. The following sentences seem incomplete:
No biomarker (urine or serum), including serum creatinine associated with an adjudicated diagnosis of ATN within the first 24 post-operative hours (abstract)
Additionally, had microscopy been included at the early post-operative timepoints (ICU arrival) for urine collection, it may not have been useful there is no published data on the role of urine microscopy following cardiac surgery.(page 13/27)

2. There are several sentences with punctuation errors.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests' below