Reviewer’s report

Title: Proenkephalin A 119-159 (penKid) – a novel biomarker for acute kidney injury in sepsis: An observational study.

Version: 0 Date: 14 Sep 2019

Reviewer: Federico Franchi

Reviewer's report:

I read with interest the study of Rosenqvist and coauthors. Conducted a prospective study enrolling about 600 patients between December 1, 2013 and February 1, 2015. The topic is interesting, but unfortunately, the study suffers of many limitations as the authors stated in the limit section. In particular, there are no data and information regarding the treatments of patients after admission to the emergency department that may have influenced the outcomes analyzed. As a consequence, it is difficult to argue that penKid at ED admission can actually be a good predictor of bad outcome.

In addition, I reported my comments below.

Introduction
1. The introduction should be reduced by around 30-40%, especially the paragraph 1.1.

Methods
2. Statistical analysis: The logistic regression analysis used should be better described.
3. Please address why the study was not registered, approved by the Ethic Committee in 2013 and only submitted now. Why such a long delay?
4. The number of patients enrolled should be reported only in the results.

Results
5. Please provide the ROC curve of penKid, sCr, and eGFR.
6. Please also provide a similar analysis used to test penKid also for sCr. It might be interesting for readers to understand how much penKid is superior to sCr to predict bad outcome.
7. A logistic regression analysis to predict each outcome considered in the study including all variables collected, should be performed.

Minor
8. Please add the number to the pages.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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