Reviewer’s report

Title: Predictors of neurologic outcome after successful extracorporeal cardiopulmonary resuscitation

Version: 5 Date: 18 December 2014

Reviewer: Jan Belohlavek

Reviewer’s report:

Authors Ryu et al. provided a valuable clinical retrospective study on predictors of neurological outcome after ECPR for refractory cardiac arrest.

Majority of patients (83%) were IHCA, minority OHCA.

I find this study very contributing for routine clinical practice, despite the limitations inherent to study design, otherwise the study is fluent to read, clear, straightforward and concise.

I recommend this study for acceptance and have only several important comments below:

Major compulsory revisions:

1/ I would suggest to add into limitation section specifically the percentage of excluded patients, compare your very low percentage of cooling/TTM to other studies – these factors may have seriously affected outcome of your patients and thus interpretation of your data.

2/ I would appreciate to add specific location of arrest in hospital: ICU, ward, cathlab…?

Minor issues, please correct spelling/English:

9 - patients never be awaken and spontaneous awakening trial
10 - They had needed continuous sedation
12 - We excluded those patients were not possible to define neurologic status

1. Is the question posed by the authors well defined? YES
2. Are the methods appropriate and well described? YES
3. Are the data sound? YES
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? YES
5. Are the discussion and conclusions well balanced and adequately supported by the data? YES
6. Are limitations of the work clearly stated? YES, however, correction needed, see above.
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? YES
8. Do the title and abstract accurately convey what has been found? YES
9. Is the writing acceptable? Needs little correction by a native speaker.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.