Reviewer’s report

Title: Hypertension, mitral valve disease, atrial fibrillation and low education level predict delirium and worst outcome after cardiac surgery in older adults.

Version: 1 Date: 03 Jan 2018

Reviewer: alessandra marcone

Reviewer’s report:

I have some observations:

1) In the new version of manuscript the AAs confirm that the low education level alone can represent a risk factor for delirium, even in the absence of cognitive decline.

In my previous review I asked the AAs for their interpretation of this finding, but I do not think it was included in the new paper. Do the authors believe that the low cognitive reserve, likely associated with low education, could represent a factor of vulnerability of the brain and a risk factor for neurological disorders such as delirium or dementia?

2) Has the title been modified? If so, why?

I believe that the presence in the title of only low education as a risk factor for delirium is too "strong” and also incomplete. The previous title was better.

3) Methods: Pre-operative phase and follow-up phase (12-18 months): did the AAs assess the functional status of patients (e.g. with BADL and IADL scale) (Basic and Instrumental activities of daily living) and behavioral and neuropsychiatric profile (e.g with NPI scale) (Neuropsychiatric Inventory) to exclude a dementia? I advise that the AAs would include in the paper some information. Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

No
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

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

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Please indicate the quality of language in the manuscript:

Acceptable

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