Reviewer's report

Title: Early prediction of survival after open surgical repair of ruptured abdominal aortic aneurysms

Version: 1
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Reviewer: Blandine Maurel

Reviewer's report:

The authors report a retrospective analysis of multi organs failure score used to predicted ICU mortality after RAAA. The present study is interesting, but some other studies are already published in the literature in the same topic. Thus the authors should include the results of these previous studies in their discussion, and the additional value of their analysis, particularly regarding their advanced statistical analysis.

Discretionary Revisions

Line 126:
An advanced age is known to be major risk factor of death after RAAA. As the median age among patients who died in ICU is very high, maybe it could be relevant to exclude patients of more than 80yo for the statistical analysis.

Major Compulsory Revisions

Line 74/75: The scores of multiple organ failure evaluation have already been evaluated in the literature during ICU after RAAA. This sentence should be modified, according to the additional value of the present study.

Line 164/165: Several studies already analysed the impact of multi organ failure scoring on post operative mortality after RAAA:

The results of this study should be compared with these previous studies in the discussion.

Discussion: Danuta Gierek et al demonstrated that the most significant correlation between post operative death and score was demonstrated for APACHE II. Some of the parameters required to calculate APACHE II scores are levels of pH and HCO3 in arterial blood gasometry, serum concentrations of creatinine and potassium and age. According to literature, abnormalities in gas exchange, acid-base imbalance and low arterial blood pressure are the key risk factors in RAAA patients. Why the authors didn’t choose to analyse the APACHE
Il score in their study? If possible, it would add some value to the present study.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests