Reviewer’s report

Title: Predicting Operative Mortality in Octogenarians for Isolated Coronary Artery Bypass Grafting Surgery: A Retrospective Study

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Reviewer: Umberto Barbero

Reviewer's report:

Luc et al performed an interesting retrospective study to assess the up-to-date discriminatory accuracy of different risk models for cardiac surgery in patients aged >80 yo. It is a simple study that focus on the fact that these scores have not been validated to specifically predict operative mortality in octogenarians.

The design is simple but clear, the statistics are well chosen and the results are important, stressing the importance to not overestimate the risk in elderly patients but rather to focus on the frailty bearing in mind concept like the gait speed. The paper is well written in a good english. I think that the only untouched point of the discussion is the importance to follow-up these frail patients in a non invasive way in order to reduce late complications. Recent meta-analysis showed how CCTA has the same accuracy of invasive angiography and should be preferred in older patients in order to reduce both complications and hospitalization (please see and cite 64 slice-coronary computed tomography sensitivity and specificity in the evaluation of coronary artery bypass graft stenosis: A meta-analysis. Int J Cardiol. 2016 Aug 1;216:52-7.)

Furthermore recent published papers showed that the use of a third arterial conduit in patients with coronary artery bypass grafting is not associated with higher operative risk and is associated with superior long-term survival (see Three Arterial Grafts Improve Late Survival: A Meta-Analysis of Propensity-Matched Studies. Circulation. 2017 Mar 14;135(11):1036-1044.). If possible the authors should add a table showing the outcome of patients over 80 yo according to the numbers of graft received.

The figures are nice but of low resolution.

Anyway, I think that after these minor revisions this is a very good paper worthy of publishing.

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.

Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes

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I am able to assess the statistics

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