Reviewer’s report

Title: Dual anti-platelet therapy following percutaneous coronary intervention in a population of patients with thrombocytopenia at baseline: A meta-analysis

Version: 1 Date: 11 Feb 2020

Reviewer: Matteo Bianco

Reviewer's report:

Dear Editor,

The present paper from Long et al. deal with an important topic which is underestimated in current scientific paper.

I have some suggestion to further improve the quality of the paper:

Page 4 line 15-16 i suggest to replace the word thyenopiridine with P2Y12 inhibitors in order to include also ticagrelor which is not a thyenopiridine.

Page 5: can the authors specify the selection process of the papers? They started from abstract evaluation and then went deeply inside the paper? How they solved disagreement between selectors? Moreover i would simplify the inclusion/exclusion criteria this way: ex: We included studies reporting: 1. … 2 … 3 … etc and we excluded: 1. Systematic review and metanalysis etc etc..

Page 5 line 45: "similar studies" or duplicated studies?

Page 5-6 In my opinion the definition of thrombocytopenia used to select studies should be included not only in table but also in the methods. Moreover including studies with different cutoff could cause bias in the interpretation of results.

Page 5-6: the bleeding definition used in the studies included should be specified in the methods.

Page 7: how was assessed the small studies bias in the present meta-analysis? Did the authors excluded patients requiring long term oral anticoagulation for atrial fibrillation or mechanical heart valve? Please provide information in the methods.

Table 4: in my opinion the P2Y12 used should be specified for each single study included in order to clarify if a previous thrombocytopenia lead to a less intense P2Y12 inhibition after PCI.

Page 9 line 42: in order to understand the clinical relevance of access site bleeding the authors should specify the access site used in the study included. A bleeding avoidance strategy in patients with thrombocytopenia require the preferential use of radial access. Can the author give more information about this result?
Page 9 line 50-51: the authors should describe the BARC bleeding on the basis of the numbers included in the classification and not dividing them in minor or major in order to make the results more readable.

In my opinion discussion and limitations are not publishable in the present form and require and extensive revision:
1. The discussion should complete the results observed in the meta analysis and not report anecdotally on other paper considering the same topic. Discussion should help the readers to understand the results and to comment the unsolved issue of the topic. In this case it would be very useful comment the use of bleeding scores as PARIS and PRECISE DAPT score focusing on why they did not used thrombocytopenia as a variable. In particular the authors can consider to include in the bibliography this paper: https://doi.org/10.1016/j.ijcard.2019.11.132. Comparative external validation of the PRECISE-DAPT and PARIS risk scores in 4424 acute coronary syndrome patients treated with prasugrel or ticagrelor.
2. The recent development of drug eluting stent with a safety interruption of DAPT after a short course of therapy could be a topic of interest to include in the discussion.
3. In my opinion the causes of thrombocytopenia are a very important determinant on prognosis and events. The authors should clearly specify in the limitations that was not possible to analyze prognosis on the basis of mechanism causing platelet deficit and for this reason the results on mortality are not generalizable and require more dedicated study.

Conclusion: due to the large number of limitations the authors should soften the conclusion.

Minor revision:
English revision from a mother tongue reviewer could be useful.

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?
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 recommend additional statistical review

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Needs some language corrections before being published

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None

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