Reviewer's report

**Title:** Effect of Pre-discharge cardiopulmonary fitness on Outcomes in Patients with ST-Elevation Myocardial Infarction after percutaneous coronary intervention

**Version:** 0  **Date:** 19 May 2019

**Reviewer:** Joanna Kapusta

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The paper aims to explore the efficacy and safety of individualized exercise prescriptions in Phase I cardiac rehabilitation that are tailored to cardiopulmonary fitness, in a sample of 499 patients, with ST-segment elevation myocardial infarction (STEMI) after percutaneous coronary intervention (PCI).

Comments:

1. Was the patient's assignment to the group of individualized exercise prescriptions (IEP) or the non-individualized exercise prescriptions (NIEP) group based only on the patient's decision (acceptance)? Were there also other eligibility criteria for the IEP and NIEP groups?

2. I suggest that in addition to the data presented in the form of a table, in the subsection Material, put information on how many patients counted the IEP group and NIEP (this will allow the reader better orientation)

3. In Table 4, the PP group (n = 30) does not seem to correspond to the PP group in Table 5 (n = 34). How many patients does the PP group count? Do the results refer to the same group in both Tables?

4. I suggest that in addition to the data presented in the form of a table, in the subsection Material, also put information on how many patients counted the PP group, and how many GP group.

5. How many patients were "good prognosis" and how many "poor prognosis" in the NIEP group?? - I think that this is important information, because in the NIEP group there could be more patients with poor prognosis, compared to the IEP group, which could influence the results when comparing the groups (NIEP and IEP) in relation to the incidence of major cardiovascular events (MACE).
6. As the Authors describe, the study included patients in whom the CPX method was used as a cardiovascular exercise test - how many patients were excluded from the study due to the inability to carry out CPX (who used a different exercise test, eg 6MWT - six minute walk test)

7. What kind of exercises were carried out in the IEP group, and what kind in the NIEP group? I understand that these were individualized and non-individualized exercises, but what exercises exactly do you mean? Breathing? Relaxation…?

8. Discussion. Page 7, line 15-16. "6-minute walking experiment" - please substitute "it" with "6 minute walk test (6MWT)".

Thank you.

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.

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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