Reviewer’s report

Title: Health-related quality of life after myocardial infarction: the role of left ventricular function

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Reviewer: Phyo Kyaw K Myint

Reviewer’s report:

This is well written paper. However, I have some comments and suggestions which I would like authors to address.

Major Compulsory Revisions

(1) The current title put focus on LV function as determinant of HRQoL after MI. Although authors tried to quantify the role of LV function in HRQoL by excluding LVEF from the model the current title may be an over-interpretation. Authors perhaps should use somewhat modest title.

(2) A flow chart with eligible population, exclusions and reason for exclusion, would provide an overall picture of the study at a glance for readers in assessing the robustness and also highlight the representativeness of the paper.

(3) 754 patients from 15 hospitals were thought to be eligible. Of them 406 (54%) had LVEF measured. At follow-up 408 returned the questionnaire. Of them 256 had data on LVEF. It appeared to me that over one third of patients (n=101) came from a single hospital which routinely measured LVEF using MUGA. This raises the question of true representativeness of the sample across the whole population. Site specific data in appendix would provide robustness of the selection criteria as well as improve transparency of the manuscript and helping the readers to make judgement of representativeness of the sample.

(4) It is interesting that in this series, a history of peripheral vascular disease predicted higher EQ-5D score, which is opposite of what one would expect to see. Authors should provide how the history of peripheral vascular disease was collected and why they have decided to include in the models. Also what is their thought on such findings.

(5) Along the similar line, it is not clear to me which variables were included in the models and (a) what are the rationale for inclusion-e.g. education level (b) how did authors ascertain these variables. This needs to be described in the method section. Also, authors should have mentioned which variables were excluded due to high correlation.

(6) I don’t think adding the time between index MI and HRQoL is a suitable approach. Intervention such as re-vascularisation (yes/no) and major life event (yes/no) may be an alternative option to consider in multi-variately adjusted
model as a crude adjustment. Alternatively, would there be enough power to examine them by stratification i.e. stratified analyses by event such as MI and revascularisation.

Minor Essential Revisions

(1) There are some typographical errors.

(2) Authors repeatedly refer to the data of the whole cohort. After referring to the flow diagram as suggested above, probably easier for readers to follow if authors concentrate on the actual number of patients included in this analysis.

(3) Why intermediate LVEF instead of low LVEF was independent determinant of a lower EQ-5D score? What the authors’ thoughts are?

Discretionary Revisions

(1) Current introduction (Background) requires revision to justify the study.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.