**Reviewer’s report**

**Title:** A study of the association of rs12040273 with susceptibility and severity of coronary artery disease in a Chinese Han population

**Version:** 1  **Date:** 07 Nov 2017

**Reviewer:** Cyril Mamotte

**Reviewer's report:**

The question posed is reasonable enough. Is there an association between the rs12040273 polymorphism with susceptibility and severity of coronary artery disease in a Chinese Han population, and taking a lead from findings in a GWAS study.

The main limitation, in my view, is that the study is not sufficiently powered to exclude an effect. The very broad confidence intervals for the OR for CAD highlight this. That the study is limited in such a manner is conceded by the authors in the paragraph preceding the conclusion, and had the authors conducted a power calculation it may have been evident prior to beginning the study. But no power calculations were carried out. A greater number of subjects, particularly of controls is required.

These comments put into context my response to the tick box questions above (i.e. the study doesn't have the necessary controls, and nor do the data therefore support the conclusion).

In addition to that there were a number of other flaws. There was a significant difference in sex and gender between the CAD and control groups. That alone invalidates comparisons of a number of variables which are well known to vary with age (e.g. dyslipidaemia, hypertension).

**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.

No

**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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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