Reviewer’s report

Title: A functional polymorphism in the promoter of miR-17-92 cluster is associated with decreased risk of ischemic stroke

Version: 0 Date: 19 May 2019

Reviewer: Wanyang Liu

Reviewer's report:

The study by Huang et al. is a case-control association study for three candidate polymorphisms (rs1491034, rs9301654 and rs982873) in the promoter region of miR-17-92 cluster and the risk of ischemic stroke (IS). The study reports the rs9301654 polymorphism in the promoter of miR-17-92 cluster may play protect role in the development of IS, and probably by influence the transcription and susceptibility of IS. The reviewer however, has several questions and comments on the manuscript.

Major concerns:

1. The study is not based on any power calculation to assess whether sufficient power could be expected for the different SNPs with 398 cases and 397 controls for such a common disease. A power calculation should be attempted to discuss what minimal sample size would have been required for each of the candidate SNPs.

2. There is no measure of quality control (e.g. DNA samples quality, genotyping). The authors should provide more information about the quality of genotyping and phenotype.

3. The statistical analyses are rather simplistic, yet some important information is missing:
   a) How haplotypes were inferred.
   b) The study focuses on dominant and recessive analyses, but the other genetic models should be better presented.

4. The cases and controls do not seem to differ in gender and age. Yet they differ significantly in diabetes, hypertension, TG, LDL-C, HDL-C, TCH. While some analyses seem to be adjusted for above items, this merits to be discussed further and how such ascertainment bias influence the results.

5. Any information about life style status (e.g. smoking, alcohol consumption) remains unknown. It would need to be documented and discussed further.

6. The authors should address a multiple comparison problem.
7. Manuscript requires grammatical review.

Minor concerns

1. When using abbreviations, write the full name of the abbreviated item followed by the abbreviation in parentheses at the point of first mention within the body of the manuscript. However in subsequent statement, authors should use abbreviations and unify the notation.

2. Please provide complete and appropriate footnotes below all tables (Table 3).

3. Please insert page number.

4. Recessive model should be "GG vs. GA+AA" et al in the Table 2. Table 5 Haplotype analysis of the four polymorphisms with risk of ischemic stroke should be "three". Figure 1 r2 = 17 should be r2 = 0.17.

5. How many samples were used for the expression analysis in Figure 2 and 3?

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 am able to assess the statistics

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

Not suitable for publication unless extensively edited
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