Reviewer’s report

Title: Non breathing-related sleep fragmentation and imaging markers in patients with atherosclerotic cerebral small vessel disease (CSVD): a cross-sectional case-control study

Version: 0 Date: 15 Sep 2019

Reviewer: Bushra Rauf

Reviewer's report:

In the current study, authors have identified differentially expressed miRNAs and mRNAs associated with osteoarthritis through RNA sequencing and bioinformatics analyses. In my point of view, Authors need to address following points:

1- The sample size of the study is too small. Authors must include significant number of samples (both patients as well as controls) in order to draw some solid conclusion from the current study.

2- In order to make the current study understandable, authors need to add some flow chart of the analyses they performed in this study or otherwise they need to pay more attention in the results and discussion section as it needs a thorough explanation. As for example, authors didn't elucidate/mention the results of protein-protein interaction network construction that they performed. Manuscript also lacks in explaining the exclusion/inclusion criteria properly which led to the identification of DEmRNA/DEmiRNA as authors did not provide the basis on which the final transcripts were selected which they included in the discussion section.

3- In discussion section authors did support their results with the previous findings but they did not explain how the findings of their study are different from the previous work? Did authors find any DEmRNA and DEmiRNA other than the previous findings which can add novel aspect in current knowledge as authors stated in abstract that current study can provide new clues for the roles of DEmRNA and DEmiRNA in osteoarthritis?

4- Authors must upload figures with higher/better resolution as the figures are not clear and it's very difficult to understand.

5- Authors need to provide the references of following:

(i) page 7, lines 40-48

(ii) page 8, lines 13-19 & 32-36
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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:

Acceptable

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