Reviewer’s report

Title: Relationship between inflammatory markers and mild cognitive impairment in Chinese patients with type 2 diabetes: a case-control study

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Reviewer: So Nagai

Reviewer's report:

In this manuscript, the authors show that relationship between inflammatory markers and MCI in Chinese diabetic patients. In particular, it is very interesting that decreased serum folate could play a role in its pathophysiological mechanism. However, additional information for patient selection must be needed for accepting.

Major points
1. How many patients were included in the study? Use a diagram to show how 126 people were eventually targeted for the research. In the diagram, it is necessary to show the reason and number of excluded patients as well. Additionally, You have to indicate the study period from when and until when.
2. The authors described that 63 diabetic subjects were randomly selected as controls, but please show in detail the randomly selected method. Was the data other than the information required for selection (age, gender, and education level) masked?
3. There is a significant increase in dyslipidemia in MCI group, is this not related to the pathogenesis of MCI? Also, describe in detail in medication for dyslipidemia, such as statins?
4. Folate deficiency leads to elevated homocysteine, and the association between homocysteine and dementia has also been noted. How was the homocysteine level in this MCI group? Even if it could not be measured, it should be mentioned in the discussion.
5. In the low folate subgroup, it may be considered that other nutrients could be lacking. Isn't it thought that the nutrient is involved in cognitive decline? Consider the possibility that low folate is a confounding factor. On the other hand, in the high folate subgroup, folate does not participate in the relationship between inflammation and MCI, but it is necessary to discuss what may be considered as a main factor that links inflammation and MCI.

Minor points
1. In Line 103, p7, subjects were excluded when "repeated severe" hypoglycemia were experienced. Please describe its "hypoglycemia" criteria.
2. In Line 177, p10, the authors mentioned that LDL-C level is significantly higher in MCI group, and you wrote again that there are more people with LDL-C>2.60 mmol/L in MCI group in line 180, p10. Either description should be removed as it will be duplicate representations.
3. From line 220 to 239, p 12-13, the first paragraph of the discussion part mostly describes the study's
results repeatedly, and has no discussion content significantly. Please describe the paragraph in more simplified form.

**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.

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

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

Acceptable

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