Author’s response to reviews

Title: Association of body mass index with amnestic and non-amnestic mild cognitive impairment risk in elderly

Authors:

Feng Wang (wangfeng0921@126.com)
Minghui Zhao (minghui5468@163.com)
Zhaoli Han (zhaoli8525@163.com)
Dai Li (dai528087@163.com)
Shishuang Zhang (zyyxhk@126.com)
Yongqiang Zhang (emaplecdc@126.com)
Xiaodong Kong (Miao7698@126.com)
Ning Sun (sun75669@126.com)
Qiang Zhang (zhangqiang_yulv@163.com)
Ping Lei (leiping_1974@163.com)

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Dear editor

Thank you for your great effort! All questions have been carefully answered. We hope the revised article will be acceptable! Thank you very much!

Sincerely yours,

Wang Feng, Lei Ping
Reviewer reports:

Kjeld Andersen, Ph.D. (Reviewer 1): Thank you for your response, which have clarified many of my questions and concerns.

However, I have a few more questions and remarks left:

1. I am still not sure about the direction of time in the study. The authors state that there was no difference between baseline level of BMI in the three groups (aMCI, naMCI, and controls), page 10 / line 206 and table 3. However, when you inspect table 3, you notice that, although the mean and SD is similar in the three groups, the distribution of underweight, normal weight, overweight, and obese is different between na/aMCI and controls (also clearly state in the text, page 10 / line 210 - 217). When you then read that MMSE and MOCA for na/aMCI and controls are comparable to each other, table 2, and that underweight/overweight/obesity at baseline is associated with increased risk of na/aMCI at follow-up, I would like to see the mean MMSE and mean MOCA for each group at baseline. Just to assure the reader that these groups have had a decline in cognitive function qualifying a na/aMCI diagnosis. I realise that it is clearly stated that all participants were cognitively intact at baseline, page 6 /line 130-131, but I think this will substantiate the conclusions of the study.

   The mean MMSE and mean MOCA for each group at baseline have been showed in Table 2. All participants were cognitively intact at baseline.

2. I still think it is very elaborate multivariate statistical models with many variables and very few participants in some of the cells. This makes me a bit curious to the remark in the letter from the authors stating results may cancel each other out if groups are collapsed and give a negative conclusion (answer 5).

   Yes, this is a limitation. In the study, nearly all the participants who met the inclusion criteria have been included, but the sample size was still not big enough. However, the conclusion from this study might be helpful for future researchers. And, we will also continue the research of this subject. In the future, we may conduct a new study with sufficient sample size to verify this conclusion. Thank you very much!

3. MOCA is in my view also a multidimensional instrument for assessing the cognitive function measuring speed, visuospatial skills, naming, memory, attention, abstraction, etc. -
so I am still not convinced why both MMSE and MOCA has been chosen for the study. It is, however, a minor point.

Thank you very much for your kind advice. We will improve our evaluation criterion of cognitive function in future research.

4. Another minor point: in table 2, it is not state what ± indicates (I guess SD), and in the foot note the #-sign denotes comparison with naMCI, however, I cannot find any #-sign in the table.

Table 2 has been revised.

5. Paper can be accepted after language modification.

We are very sorry. Our English are poor. The English in the text has been modified carefully. We hope it will be acceptable.