Reviewer's report

Title: Risk factors for dementia in the epidemiological study of Mungualde County

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Reviewer: Burcu Balam Balam Yavuz

Reviewer's report:

This study examining the risk factors of Alzheimer's disease and vascular dementia is of importance. In the early diagnosis of dementia determination of the risk factors is crucial. Although it is a well designed study with interesting results, some concerns have raised.

Abstract
1- Number of patients in AD and VD group can be added to the abstract.

Introduction
1- There is a study of Cankurtaran et al. examining the risk factors of both AD and VD which is similar to this work (Cankurtaran, M. et al., Risk factors and type of dementia: Vascular or Alzheimer?, Archiv. Gerontol. Geriatr. (2007), doi:10.1016/j.archger.2007.06.005). I think this can be added to the introduction and its results can be compared with your manuscript and discussed in the discussion section.

Methods
1- Page 3: References of the neuropsychiatric tests, namely Neuropsychiatric Inventory and seven-minute test should be added.
2- Page 4: How was the diagnosis of hypertension, hyperlipidemia, diabetes mellitus, stroke, and depression made? Were they only based on the report of the patient or the carer? Were the blood pressures, plasma glucose, cholesterol levels measured; and which reference values were taken? Was the stroke evident? Was any depression scale used? These should be mentioned in the manuscript.
3- Page 4: There are only 15 VD patients. Performing multivariate analysis with this small number is not right. That is why the result of the logistic regression analysis of VD is not appropriate (OR=131). The multivariate analysis of VD should be omitted.

Results and Discussion
1- Results and Discussion should be independent titles and given separately.
2- Page 5, page 7: 95%CI and p values should be added wherever OR are given.
3- Page 5: Results of the multivariate analysis of VD should be deleted because it is not right to make this analysis with 15 patients and it is misleading.
4- Vascular risk factors are known to be related to Alzheimer’s disease and there are many articles confirming this, as some of them are cited by the writers. However, this study did not find any relationship between vascular risk factors and AD. The possible reasons of this should be discussed by the writers. Do they think the number of patients or the cross-sectional manner of the study or something else lead to this result? This point should be discussed.

Conclusion
1- The last sentence of the conclusion was not validated by the results of this study. To make that conclusion a longitudinal analysis is needed. This sentence should be deleted.

Tables
1- Table 1 and Table 3: some of the p values are given as 0.00. Do you mean <0.001? The exact value of p should be given, or if it is smaller that 0.001 it should be shown as <0.001.
2- Table 1: Continuous variables should be given as “mean±SD”, instead of “mean (SD)”; and this should be shown in the first column, instead of (SD) it should be (mean±SD).
3- Table 2: p values should be added to make the table self explanatory.
4- Table 3: The data of multivariate analysis of VD should be deleted (explained above). There is also a typing error DV should be VD.
5- Table 4: IC should be CI. I think it is a typing error.

General
Although the manuscript is well written, there are some typographical and grammar errors which can be easily corrected.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests