Reviewer's report

Title: Diagnostic indices for vertiginous diseases

Version: 1 Date: 29 July 2010

Reviewer: Ji Soo Soo Kim

Reviewer's report:

The authors developed diagnostic indices for four prevalent vertiginous diseases, phobic postural vertigo, benign paroxysmal positional vertigo, Meniere’s disease, and vestibular migraine. Using logistic regression analysis, they built diagnostic scores from preselected seven questions, and suggested cut-off points for each disorder. The screening questionnaire provided by the authors is simple and would be useful especially in epidemiological studies if validated further in a larger number of patients. However, there are several concerns and flaws of this study.

Major compulsory revision:

1. The authors should provide diagnostic criteria used for each disorder.

2. Please specify the number of questionnaire excluded due to missing data. What is mean by “missing data”? The authors need to analyze the reasons for missing data and diagnoses of the patients excluded due to missing data since this issue may be related to inapplicability of the questionnaire to the specific group of patients.

3. It should be clearly stated that the patients were allowed to check only one answer for each question. This issue is related to the following concerns.

4. In my view, the questionnaires seems inapplicable to the patients with vertigo from more than one cause, i.e. phobic postural vertigo following organic vestibular disorders, vestibular migraine and PPV, and complicated BPPV. The authors should include discussions on this matter.

5. Page 5, 2nd paragraph: In contrast to the authors’ description, PPV requires only four items for diagnosis in Table 1. Please check on this.

6. Page 6, 2nd paragraph: The authors description on the diagnostic indices for VM does not match with the contents in Table 1: “as permanent vertigo” in the Table instead of “appearing in attacks”, and “like on a roundabout” in the Table instead of “like on a boat”

8. Page 13, Table: According to the caption, the superscripts in the Item (How often do you have sweating/nausea/vomiting?) for diagnosis of MD are confusing, and delete “0*.98, 1*.98, 2*.98, and 3*.98” in the box.

Minor essential revisions:

1. Please unify the terminology for the disorders: “Benign paroxysmal vertigo” in the abstract and figure caption and “benign paroxysmal positional vertigo” in the
text (Page 3, first line), “Phobic vertigo” in the abstract and Intro, and “phobic postural vertigo” in the figure caption.

2. Please consider using the word, “persistent” rather than “permanently” when describing occurrence of vertigo.

3. The 4 figures may be put into one.

This manuscript contains numerous grammatical errors.

1. Page 2, first line of Intro: praxis -> practice
2. Page 2, second line of Intro: delete “about”
3. Page 3, first line of Methods: “condensing of” -> “condensing”
4. Page 3, 9th line of Methods: insert “,” before “orthoptic examination”
5. Page 3, first line of 2nd paragraph of Methods: insert “,” or “;” before “PPV”
6. Page 4, 2nd paragraph: insert “(“ before “defective hearing”
7. Page 4, 3rd paragraph: insert “,” after “mentioned above”
8. Page 4, 3rd paragraph: insert “,” after “the diagnostic score”
9. Page 4, 3rd paragraph: “The effects estimates” should be read as “The effect estimates”.
10. Page 9, 2nd paragraph: “higher” -> “larger”
11. Page 9, 2nd paragraph: “proof” -> “prove”
12. Page 9, 2nd paragraph: “holds” -> “hold”
13. Table 2, caption: “und” -> “and”

Etc..

Level of interest: An article of importance in its field

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.