Reviewer’s report

Title: Association of sleep duration and insulin resistance in Taiwanese vegetarians

Version: 1 Date: 15 May 2012

Reviewer: Nico S. Rizzo

Reviewer’s report:

The authors have chosen an interesting topic covering the: “Association of sleep duration and insulin resistance in Taiwanese vegetarians.”

Major Compulsory Revisions

1. How would socioeconomic characteristics of the study participants such as education and income compare to vegetarians and non-vegetarians in the general population?

2. In the methods section it is mentioned that the study participants were recruited from a regional hospital in south Taiwan at the time of their physical examination between May 2007 and April 2008. Was this part of a regular, routine physical examination or were the subjects being examined because of some specific ailment or follow up procedure?

3. The authors report that sleep duration was assessed by responses from separate questions on hours of sleep… Could the authors clarify the procedure and describe more in detail the questions used for this assessment.

4. Considering the low numbers of subjects that slept >8 hrs (n=62) how much statistical power did the adjusted logistic regression model have?

5. In the statistical analysis section the complete model with all the covariates of the final logistic regression analysis should be given.

6. The authors chose to exclude diabetic subjects. What was the rationale for that exclusion? What was the total number and the distribution in regards to sleep duration of those excluded for being diabetic? How would the results have been modified if diabetic subjects had been included?

7. Did the authors gather any information on medications that would have altered the blood chemistry?

8. The authors conclude that sleep duration of more than 8 hours per night is an independent risk factor associated with increased insulin resistance in vegetarians. Considering the low numbers of participants that slept #8 hrs/day, missing information on sleep quality, sleep apnea, depression and other relevant factors this statement should be revised and be more cautiously formulated.
Minor Essential Revisions


2. The authors use HOMA (Homeostatic model assessment) as a surrogate measure of insulin resistance. In their article on Use and Abuse of HOMA Modeling Wallace et al. report that “HOMA estimates of insulin sensitivity are usually not normally distributed. The data should be tested for normality, and if they are found to not be normal, they should be logarithmically transformed and reported as geometric means with appropriate measures of dispersion.” How did the authors conform with this recommendation?

3. Tables 1 and 2 should include dietary energy intake.

4. It would be helpful to include the variables of the complete model in Table 3.

**Level of interest:** An article whose findings are important to those with closely related research interests

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.