

## Reviewer's report

**Title:** Dietary intakes in infertile women: psychological correlates

**Version:** 1 **Date:** 11 June 2009

**Reviewer:** Satoshi Sasaki

### Reviewer's report:

#### General comments

1. Why did you compare several dietary variables between women with hypothalamic amenorrhea (HA) and those with polycystic ovary syndrome (PCOS), without any comparison with women with normal reproductive activity? What conclusion can you draw from the comparison of women with HA with those with PCOS? What is the purpose of this study?
2. There seems to be two topics in this single paper: comparison of dietary intake between women with HA and those with PCOS, and investigation on influence of psychological distress on accuracy of self-reported dietary information. It would be better to investigate each topic as a single paper (i.e., separately), with more appropriate research methodology.

#### Major comments

1. The introduction is too general (particularly the first and second paragraphs). Please provide a narrower introduction, directly leading the rationale and purpose of the present study.
2. Please provide information on whether the subjects received the dietary counseling or dietary treatment by health professionals.
3. Data obtained from 7-day diary were not used in the analysis (because of high percentage of low energy reporters). So, why did you use the two dietary assessment methods (FFQ and diary)? Was your methodology regarding 7-day diary appropriate? There is no information for assessing your research method regarding 7-day diary. For example, did dietitian or study staff check the 7 day diary for completeness?
4. Was the FFQ suitable (i.e., valid enough) for the use in the present study with such a small number of subjects (n = 10 and 8 in each group)?
5. Was the estimation method of BMR, i.e., Schofield method, suitable (valid enough) for the use in the present study with such a small number of subjects (n = 10 and 8 in each group)?
6. Methodology for estimating the glycemic index and load is unclear. How was dietary information collected? What is the reference period for the dietary assessment? What sources did you use for glycemic index values? How about the validity for the method for estimating the glycemic index and load?

7. It would be helpful if the authors provide a brief explanation of subject characteristics, especially for physical activity.
8. Without sufficient information on habitual physical activity, you cannot measure the DEGREE of underreporting (and overreporting) by using the ratio of reported energy intake to estimated basal metabolic rate, but you may only identify subjects who definitely (i.e., extremely) under- or overreport their energy intake. Please reconsider that your strategy regarding dietary misreporting is appropriate, and discuss several limitations.
9. Why did you examine only underreporting, but not overreporting, of energy intake?
10. Page 10, the results of psychometric assessment: Please state this in the discussion section, not in the result section, regarding the comparison of the data with healthy women.
11. Figure 1: What statistical values are shown in this figure? All abbreviations should be explained. What is the possible range for each score? Table should be used instead of figure. Please provide standard deviation values.
12. Page 12, What is the rationale for combination of the two groups in the correlation analysis? It seems unsuitable to conduct correlation analysis in the case of very small sample size, because inter-personal variation may be wide.
13. Comparison of absolute dietary intake between the groups is somewhat inappropriate, given the significant difference in body size and possible influence of misreporting of dietary intake. Energy-or body size-adjusted values of all dietary intake may be used for the comparison.

#### Minor comments

1. Please provide line numbers.
2. Page 4 Line 13: What does "the latter study" mean?
3. Page 10 Line 5: The word "slightly" should be changed to "significantly."
4. Table 1: Please show height in "cm" not in "m" if you measured it by 0.5 cm unit.

**Level of interest:** An article of limited interest

**Quality of written English:** Not suitable for publication unless extensively edited

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

#### **Declaration of competing interests:**

I declare that I have no competing interests.