Reviewer's report

Title: Evidence of Endothelial Dysfunction in Obese Non-Hypertensive Children

Version: 1 Date: 6 October 2009

Reviewer: Stijn Verhulst

Reviewer's report:

This is a well written, interesting and important study which compared markers of endothelial dysfunction between obese and non-obese children. The authors excluded or controlled for a number of confounding conditions including hypertension, sleep apnea and a family history of cardiovascular disease. I have some comments and suggestions for the authors:

1. The authors have chosen to exclude children with sleep apnea. Although I can understand this approach, I think that it would be very interesting to look at endothelial function in obese children with and without sleep apnea.
2. Is the InBody 320 scale which was used in the present study to determine the percentage body fat validated in children?
3. Uric acid could be an important molecule in the relation between obesity, sleep apnea, hypertension and endothelial dysfunction. Do the authors have any data on uric acid or on other markers of oxidative stress in this population?
4. Subjects with fasting glucose > 120 mg/dl were excluded? Why did the authors not chose the cut-off of the ADA which is 126 mg/dl? An oral glucose tolerance test was not performed, so it remains possible that some subjects did have type 2 diabetes.
5. In my experience, many of the variables collected in the present study are not normally distributed. Therefore, I wonder if non-parametric testing is not indicated?
6. It is suprising that none of the metabolic variables were different between both groups. Can the authors explain this finding?

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.