Reviewer's report

Title: Joint association between birth weight at term and later life adherence to a healthy lifestyle with risk of hypertension: A prospective cohort study

Version: 1 Date: 9 March 2015

Reviewer: Takanari Kitazono

Reviewer's report:

This is an interesting study; however, it needs much more work. The reviewer’s specific comments are as follows.

Major

1. The authors excluded 31,369 participants who had factors potentially affecting outcome (incidence of hypertension). However, more than 10,000 participants were additionally excluded from the final analysis due to missing data. Is there any possibility that excluded subjects biased the results?
2. Were participants really free of hypertension at baseline? Blood pressure should have been measured at baseline. How did the authors validate the baseline data?
3. The authors diagnosed hypertension by means of questionnaires. However, the severity of hypertension is unknown. Do the authors consider whether hypertension is severe or not?
4. In the assessment of healthy life score, each factor has equal weight, 1 point. Do these five factors have the same importance as adult hypertension risk?
5. The use of nonnarcotic analgesics does not appear to be associated with the incidence of hypertension. Is it necessary to adjust for this factor? What were the reasons for the participants to use such nonnarcotic analgesics?
6. Salt intake has the most significant impact on the incidence of hypertension. Therefore, the amount of salt intake should be assessed separately from the diet score.
7. When was BMI measured? How much is the correlation coefficient between birth weight and BMI? The proportion of obesity increases with age. In case of adjusting for BMI, the value at the timing of incidental hypertension would be better than baseline value.

Minor

1. Is secondary hypertension excluded from the diagnosis of hypertension?

Quality of written English: Acceptable

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

Declaration of competing interests:

None.