Reviewer's report

Title: Pregnancy-Induced Hypertension and Neonatal Growth at 28 and 42 days Postpartum

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Reviewer: Michael Vincer

Reviewer's report:

Reviewers comments regarding the manuscript entitled: "Pregnancy-Induced Hypertension and Neonatal Growth at 28 and 42 days Postpartum" by Emmanuelle Baulon, William D Fraser, Bruno Piedboeuf, Pierre Buekens and Xu Xiong.

The following areas are addressed:

1. Is the question posed by the authors new and well defined?

   a) The question is new and well defined by the authors. It is an important question because, as the authors suggest in the discussion, poor early growth may have an impact on later development of adult disorders such as diabetes, coronary heart disease, strokes, etc.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

   a) This is a well defined population-based cohort and thus is a worthy group to consider for such population-based questions. However, one important issue needs to be addressed both in the methodology and in the data analysis. This issue is the definition of gestational age, was it by maternal dates, ultrasound, other or a combination of the above? It would be best to be as precise as possible, for example is there an algorithm used to assign gestational age?

   Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

   b) Under methods, first paragraph, the authors note a number of exclusions which, for the most part, seem reasonable. However, the group with missing or no data (n=2,567 less the 105 stillbirths and 138 neonatal deaths, i.e. n=2,324) should be defined as "lost to follow-up" (loss to follow-up rate = 2,324/14,731=15.8%). Exclusions should be reserved for those that do not correctly belong to the group under study while lost to follow-up are those one would include in the study except that data is missing. Importantly, the authors need to address the question: was there a systematic reason why some infants did not have data which could conceivably bias the outcome of interest?

   Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

   c) The NGP formula is correct except the brackets are in the wrong place. For example, the NGP at day 28 is defined as [(neonatal weight 28 days-birth weight)/(birth weight x 100%)] should actually be: [(neonatal weight 28 days-birth weight)/birth weight] x 100%. The same hold for the 42 day
weight. Table 2 needs to be corrected as well.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

3. Are the data sound and well controlled?

a) For the most part, the data analysis is sound. One area that needs addressing, however, is in the multivariate analysis. Gestational age has not been included as an adjustment variable for growth rates at 28 and 42 days. This is particularly important when considering reference #6, "Xiong X et al. Impact of preeclampsia and gestational hypertension on birth weight by gestational age. Am J Epidemiol 2002; 155:203-209", which was co-authored by two of the current authors, which notes that IUGR is more common in preeclamptic infants born preterm. Additionally, if an infant born was born at, for example, 34 weeks, then he/she is only 38 weeks corrected age at the 28 day weight and only 40 corrected weeks at the 42 day weight.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

This paper seems to follow conventional and intuitively appropriate standards for data reporting.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

For the most part this is true. It is necessary to address the issue of gestational age first then raise it in the discussion.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

6. Do the title and abstract accurately convey what has been found?

The title is correct except the word "neonatal" should be replaced with "infant" because the neonatal period ends at 28 days. The abstract is appropriate but it may be necessary to change when gestational age is entered into the model as an adjustment variable (if it changes the conclusion).

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

7. Is the writing acceptable?

a) For the most part, the writing is acceptable. As in the title, "neonatal" should be replaced with "infant", therefore, the "neonatal, day 28" and "neonatal, day 42" weight should really be "infant, day 28" and "infant, day 42" weights.
b) On page 6, first word under statistical analysis "Means" should be singular "Mean".

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests