Reviewer's report

Title: Maternal venous hemodynamics in gestational hypertension and preeclampsia

Version: 2  Date: 24 April 2014

Reviewer: Asma Khalil

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Journal: BMC Pregnancy and Childbirth
Manuscript Title: Maternal venous hemodynamics in gestational hypertension and preeclampsia
Authors: Gyselaers W et al

In this study, the authors have reported maternal arterial, venous hemodynamics and cardiac function to evaluate the cardiovascular profile in 4 groups of participants: uncomplicated pregnancy, non-proteinuric gestational hypertension, early-onset preeclampsia and late-onset preeclampsia. This is an interesting study which contributes to the body of knowledge on cardiovascular changes in hypertensive disorders in pregnancy. I have a few comments:

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
  - Methods: The authors should justify excluding cases without proteinuria or with non-hypertensive proteinuria.
  - Discussion: The authors might want to add a paragraph to their findings to discuss the implementation of the new diagnostic definition of preeclampsia.

- Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
  - As the authors highlighted in the Discussion, one of the main limitations is the small number of cases, in particular the uncomplicated pregnancy groups (only 13 participants). The potential implications, e.g. lack of power to show significant difference, should be added.
  - Methods: Have the authors performed a power calculation? If so, they should add it to the Methods section.
  - Results: You would expect that some of the women had received antihypertensive therapy. The authors should comment on this in the Results section.
  - Results: The authors commented on the “The difference in slope and correlation between left kidney EPE and UP, GH or LPE was significant (p #
0.05). I suspect that this is a mistake.

**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'