Reviewer's report

Title: Ultrasound Study of Carotid and Cardiac Remodeling and Cardiac-arterial Coupling in Normal Pregnant and Preeclampsia Women

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Reviewer: Asma khalil

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Title: Ultrasound Study of Carotid and Cardiac Remodeling and Cardiac-arterial Coupling in Normal Pregnant and Preeclampsia Women
Authors: Yuan L et al.

Major Compulsory Revisions

1. The authors state that the measurements were performed in supine position. This position might be associated with significant vascular changes, e.g. supine hypotensive syndrome, in particular that most of the measurements were performed in the third trimester.

2. Reference normal values for non-pregnant age-matched women were 0.12 and 8.70 mm² for carotid relative wall thickness and cross sectional area respectively (data not shown). The authors should provide a reference or the data.

3. Was a Power calculation performed for this study? The authors should describe it in the statistical analysis section of the Methods. How could they ascertain that their negative findings (e.g. the arterial ventricular coupling in patients with preeclampsia and the follow-up data morphological and functional parameters were comparable to controls).

4. Did the authors test the data to see whether the values of the key parameters are normally distributed or not? If not, non-parametric tests should be used.

5. The authors included Nulliparous women only. They should justify this.

6. Some of the vascular parameters in this paper are significantly correlated to the blood pressure. Have the authors attempted to correct for this e.g. using regression analysis?

7. The authors should comment on the strengths of their study.

8. The authors should mention more details on the follow-up data.

9. The authors should elaborate on the clinical or scientific implications on their study findings.

Minor Essential Revisions

10. The brachial blood pressure measurements were taken using an oscillometric device (Collin). Is this device validated in pregnancy?

11. Table 3. The abbreviations should be stated in the legend.
12. The English in this manuscript needs some attention

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

none