Reviewer’s report

Title: Oxidative stress and endothelial function in normal pregnancy versus pre-eclampsia, a combined longitudinal and case control study. The Endopreg study.

Version: 2 Date: 03 Feb 2018

Reviewer: Tracey Weissgerber

Reviewer’s report:

Does the longitudinal study include smokers, given the known adverse effects of smoking on vascular function?

FMD is measured in the brachial artery, however the protocol states that blood flows to calculate the shear stimulus are measured in the radial artery. Is this correct?

The authors should examine the effect of mode of delivery in analyses of placental samples, as labor and vaginal delivery causes placental oxidative stress and may affect the markers being measured (Cindrova-Davies et al., 2007, Am J Pathology, 171(4):1168-1179).

The authors mention that use of medications will be recorded to look for potential confounders, however there is no plan for this in the analysis. This is critically important as most women with preeclampsia will likely be receiving one or more clinically necessary medications at the time of measurement (anti-hypertensives, magnesium sulfate, etc.).

I could not find information on test conditions (fasting or timing or previous meal, avoiding caffeine intake, time of day, etc.), which are typically standardized as described in the guidelines for FMD measurement. In women with preeclampsia it is typically impossible to control test conditions, as any delay in testing these patients may mean that they are unable to participate due to worsening symptoms, clinical instability, active labor or delivery. However, test conditions should still be recorded to identify and adjust for potential confounders in the analysis.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Unable to assess

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review? If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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