Reviewer's report

Title: Association between adverse pregnancy outcome and imbalance in angiogenic factors and oxidative stress biomarkers in gestational hypertension and preeclampsia.

Version: 3
Date: 26 May 2015

Reviewer: Emmanuel Morhe

Reviewer's report:

General Comments
This is important subject for investigation. The authors are commended for their efforts in assessing the molecular basis for gestational hypertension, preeclampsia and associated adverse outcomes. Generally, the paper is well written. Title is Adequate

The objective are clear. References are appropriately cited

Major compulsory revisions

Study design:
1. The study design as described is unclear. A clear description stating the beginning, follow-up period and end of the study will help determine whether it a cohort, case-control or comparative cross-sectional study.
2. Lines 102 – 105 may be broken down to bring out the meaning more clearly.

Study setting:
3. A brief description of the place of hypertensive disorders in pregnancy among other obstetric problems in KATH will be helpful in understanding this study.

Participant Selection:
4. How was the “purposive sampling” done?
5. At what level of maternity care were the participants recruited?
6. How were participants; cases (GH and PE) and controls selected? How was selection bias minimized?
7. How were 150 participants selected from the initial 235 and why?
8. How long were participants followed-up to assess the pregnancy outcome?
9. How many recruited normotensives (NP) develop GH, and how many participants with GH develop PE, and how were they handled in the study?

Data collection tool
10. What is self-structured questionnaire?
11. What is visible proteinuria?
12. Please, revise some of the Obstetric definitions e.g. “PPROM” and placenta
praevia, and IUGR

Statistical analysis

13. What is “adverse outcome,” as used in of this study? A clear definition and its appreciate application in data analysis and interpretation will address challenges regarding low number study participants (small sample size).

14. Please revise categorization of level of education presented in table 1

Ethical consideration Should be more concise and placed at the end of the study methods; (the first sentence may be enough).

RESULTS

15. Lines 197-200: For clarity, the percentages compared should be stated.

16. Lines 249,251: Please state the computed p-values instead of p<0.05 in the results.

Figures:

17. The information in italics need not be part of figures 1-3 since acronyms/abbreviations have been defined. Part of the information may be presented in the text under data analysis or below individual figures instead of the current format.

Table 1:

18. Lines 427-432 need not be part of the table since acronyms/abbreviations have been defined. The of the information may be presented in data analysis or results

19. “Age” should be “mean age” (years)

20. What does GA at postpartum represent?


22. History of abortion: induced or spontaneous?

Table 2

23. Lines 435-437: need not be part of the table since acronyms/abbreviations have been defined. Some of the information may be presented in data analysis or results.

Table 3:

24. Lines 440-442: need not be part of the table since acronyms/abbreviations have been defined. The rest of the information could be presented in data analysis or results.

25. For orderly presentation, table 3 should follow table 1 since both present profiles of the participants.

26. A sentence on the analytic procedure used in the abstract will be appreciated

Minor Essential Revisions
1. For clarity, authors should ensure that in various sections of the paper level of factors being assessed is carefully stated e.g. “Oxidative stress levels” should be “oxidative stress marker levels” etc.

2. Lines 64 – 66 and 74-76 are not clear and may need revision to bring out the meaning more clearly.

3. Lines 86-89: appears inappropriately placed; the information may be merged into study methods.

4. Lines 187-189: what were compared?

5. Will early identification of the factors as stated in conclusion prevent adverse outcome?

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

non-financial competing interests in relation to this paper

Authors from same institutions as reviewer