Author's response to reviews

Title: Uterine rupture in a Teaching hospital in Mbarara, western Uganda, unmatched case-control study

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Author's response to reviews: see over
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Author's response to reviews: see over

Dear Editor and Reviewers,
We thank all 2 reviewers for their insightful comments that we think have substantially improved our manuscript. Please find below a point-by-point response to each comment.

All the co-authors reviewed the manuscript and we also had an English language writer copyedit the paper so as to improve on the style of English.

Thank you again for your kind consideration.

With best wishes,

Dr Peter Kivunike Mukasa

Reviewer (Andrea Barnabas Pemba)

Major compulsory revisions

Reviewer’s comment

1. The information in the background is like blocks and there is lack of continuity from one paragraph to the next. There is need to rewrite the paragraphs. I suggest that the paragraph “Uterine rupture is a catastrophic…” be rephrased and merged with the information in second paragraph, first line “For every maternal death…”. Rephrase and merge the paragraphs “The occurrence of uterine rupture…”, “Uterine rupture stands…”, “In high income countries…” and other important risk…” as they have related information. Some paragraphs have two sentences, even one sentence. There is need to pull together related information to form good paragraphs.

Response

Thank you for this observation, the whole introduction has been re-arranged and paragraphs re-rewritten

Reviewer’s comment

2. The conclusion is only the magnitude of uterine rupture. There is need as well to relate to the findings of the study. Furthermore, generalization of the findings to whole of Uganda may not be correct due to limitation of the methods used
Response

The conclusion now relates to the findings from the study and now reads

“Uterine rupture still remains one of the major causes of maternal and newborn morbidity and mortality in Uganda. Promotion of skilled attendance at birth, use of family planning among those at high risk especially those with high parity, avoiding herbs, correct use of partograph and preventing unnecessary c-sections are essential in reducing the occurrences of uterine rupture”

Minor essential revision

Reviewer’s comment

3. Page 6, the last sentence on the third paragraph “Postpartum haemorrhage, including uterine rupture…” is not clear. Postpartum haemorrhage (PPH) is different from uterine rupture as they occur at different stages of labour. PPH occurs after delivery of the baby but rupture of the uterus commonly occurs during labour and lead to laparotomy.

Response
I have re arranged the background section and corrected the non clear statements e.g. postpartum haemorrhage, including uterine rupture…” is not clear has been changed to uterine rupture accounts for about 8% of all maternal deaths

Reviewer’s comment

4. What was the cut off point for parity? Table 2, it is “#5 and #4” which is strange. In the texts of results and discussion is >5. This is also the same for the number of antenatal visits “>4 and <4”, where are those who had 4 visits. There is need to re-visit the data and present accordingly.
We apologize for lack of clarity; parity was arranged as para1, para2-4, Para 5-7, and then Para ≥8. However, during analysis, we combined para1 and para2-4 to make ≤4, and the rest as Para ≥5. 
For ANC, those who attended less than 4 times were grouped as ANC visits <4 and those who attended 4 times and above were grouped as ≥4 times.

Reviewer’s comment

5. The OR and its CI in the text of results section is different from that in table 2.

Response

This has been changed and is now uniform

Reviewer’s comment

6. In the results, the OR and 95%CI of the parity and distance from the facility are different from table 2.

Response

These have been harmonized

Reviewer’s comment

7. The sentence “The majority of the maternal deaths resulted for hypovolemic shock from haemorrhage and sepsis... [11, 33]” should be deleted as these are not in the results section.

Response
Thank you for the observation, this sentence has been deleted

Reviewer’s comment

8. In the abstract, methods section, it is stated that the controls were randomly selected. In the methods section of the manuscript it states that the controls were three consecutive mothers after the case. Need to be revised.

Response

This has been revised and now reads “For every case, three consecutive in-patient chart numbers were picked and retrieved as controls. All available case files, labour ward and theater records were reviewed.”

Discretionary Revision

Reviewer’s comment

9. Figure 1 can be deleted as it is completely presented in the text.

Response

Thank you for the observation, figure 1 has been deleted

Reviewer’s comment

10. Table 4 can be deleted; it does not contribute much to interpretation of this paper.

Response

Thank you for the observation, table 4 has been deleted

Reviewer’s comment

11. Information on the use of the partograph is in table 1 (and not table 2) and that of obstetric fistula is not in any table.
Response

*Information on partograph use in table 1 and 2, I have deleted information on obstetric fistula*

Reviewer’s comment

12. The sentence “The 20-34 age range....[15-16, 20,33]” can be deleted as this is a group which majority are giving birth and was not among the risks studied.

Response

*This sentence has been deleted*
Reviewer: (Thomas van den Akker)

**Major compulsory revisions:**

The abstract needs major adjustments:

Reviewer’s comment

1. There are several typing errors (e.g. ‘of’ missing as the fifth word in the first sentence) and the authors need to proofread (this comment goes for the whole document).

**Response**

*Thank you for the observation, we have proofread the document and also a native English language speaker and writer copyedit the paper so as to improve on the style of English.*

Reviewer’s comment

2. The background section of the abstract does not make it clear whether uterine rupture should get particular attention in Uganda. The (no doubt major) relevance of this study is not expressed. Also, no study objective is given in this section

**Response**

*Thank you for the observation, we have added a sentence on relevance and objective of the study*
Reviewer’s comment

3. The abstract’s methods section is too limited.

Response

Thank you for the observation, we have improved on the section

Reviewer’s comment

4. Some ORs in the results section are below 1 and make it seem as if ‘predisposing factors’ are rather ‘protective factors’. It is not clear how many maternal deaths were due to uterine rupture, and the final figures give no with the control group. It also appears as if monitoring the partograph makes no difference in preventing uterine rupture.

Response

Thanks for the observation, we have corrected the ORs in the text, there were 10 maternal deaths due to uterine rupture giving a case fatality rate of 12%. Partograph makes a difference in preventing uterine rupture as shown by the ORs), lack of partograph use increases risk 19 times  (OR 19.57; 95% CI 2.65-144.8)

Reviewer’s comment

5. Some of the statements in the conclusion do not follow logically from the rest of the abstract. Since no mention is made of other causes of maternal and newborn mortality it is not clear that uterine rupture is really ‘one of the major causes’. From the results section I gather much more specific/important recommendations than the ones given (e.g. family planning to prevent grand multiparity, reducing the use of local herbs, preventing unnecessary c-sections etc.). Which ‘timely interventions’ are meant?

Response
We have re-re-written the conclusion section to relate with study findings

Reviewer’s comment

6. Keywords could be expanded, but I am in doubt as to how many keywords the journal allows.

Response

Thanks you for the observation, we have added another key word

Background

Reviewer’s comment

1. The statement on the incidence of severe maternal morbidity in the first paragraph is questionable and depends on definitions used (ref Say et al. Reprod Health 2004).

Response

Thank you for the observation, we have deleted this statement but also re-written the background section

Reviewer’s comment

2. It is doubtful that deaths due to uterine rupture are (only) included in PPH figures.

Response

Thank you for the observation, we have deleted and modified the statement

Reviewer’s comment
3. The role of obstructed labour in uterine rupture as one of the most important risk factors in low resource settings (versus previous c-sections in high-resource settings) is mentioned relatively late in the section and therefore the previous mention of VVF and ‘foot drop’ as associated with RU (which are actually complications of obstructed labour) is confusing to the reader.

Response

Thank you for the observation, this has been deleted

Reviewer’s comment

4. Impacting negatively on MDG 4 and 5 is not at all a ‘unique potential’

Response

This has been deleted

Reviewer’s comment

5. The other ‘important’ risk factors are not all equally important, and perhaps attention should be given to the fact that these factors are setting-/context-dependent and their (relative) importance unclear in many settings (e.g. abnormal placentation is rarely a contributing factor, and certainly not very important in a context of frequent obstructed labour; the statement regarding the ‘injudicious use of oxytocics’ is dangerous since correct use of oxytocics only gives a moderate increase in risk and is important in the prevention of prolonged labour – the term ‘injudicious’ needs more careful explanation and to be embedded in a context).

Response

The whole background section has been re-written and most of these statements changed

Materials and methods:

Reviewer’s comment

This whole section is too limited and needs considerable attention: e.g. were cases retrospectively collected? By whom: who was providing oversight over the midwives? What was the exact study period? What was done to prevent underreporting? Etc.
Response

This section has been improved on

**Results:**

Reviewer’s comment

1. Some of the information in the text is a duplication of the Table and therefore unnecessary.

Response

*Figure 1 and table 4 have been deleted*

Reviewer’s comment

2. Some of the ORs are not clear to me, as stated before.

Response

*Thanks for the observation, the ORs have been corrected*

Reviewer’s comment

3. Here the importance of the partograph is expressed much more clearly than in the abstract! At least the OR is explanatory. The sentence ‘Only 15%... partograph’ is not clear to me, and I do not see it in the Table.

Response

*Thanks for the observation; we have deleted the sentence “Only 15% of all cases and controls were monitored using a partograph”*
Discussion:

Reviewer’s comment

1. This section is very long compared to other sections; limitations and implications should be included, and the whole section should be shortened. There are many vague and general statements that could be omitted. Emphasis must be put on those recommendations that are directly relevant for the clinic, such as improved partograph use. Could there be bias among collectors with regard to herbs being mentioned as a major risk factor? In this way, the health worker could remain blame-free.

Response

Reviewer’s comment

2. Was any type of audit done? Could be mentioned as a tool.

Response

_No audit was done, however we do mention that it could be used for quality improvement_

Reviewer’s comment

3. I miss references to several studies of RU in similar settings (e.g. van den Akker et al. using audit to reduce the incidence of uterine rupture in a Malawian District Hospital, Int J Gynaecol Obstet 2009)

Response

_Sorry for omission, we have included i.e. reference number 8_
Reviewer’s comment

4. Management differed quite markedly in this study from for instance the study above: more hysterectomies, fewer repairs. Any explanation for this?

Response

*This was due to extent of the injury, the more severe injury/rupture, less chances of salvaging the uterus, hence the explanation for the more hysterectomies*

Reviewer’s comment

5. Family planning is only marginally mentioned.

Response

*Yes we acknowledge that family planning is marginally mentioned due to the fact that it was not the primary focus*

Reviewer’s comment

6. The limitations section needs to be expanded: how about underreporting? Etc.

Response

*We have added a limitation of underreporting*

Minor essential revisions:

Reviewer’s comment

Please do proofread before resubmitting this document.

Response

*All the authors have proof read the document and also a native English language speaker and writer copyedited the paper so as to improve on the style of English.*