Title: Recurrent secondary postpartum hemorrhages due to placental site vessel subinvolution and local uterine tissue coagulopathy

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Author's response to reviews: see over
Cover Letter to reviewers

Dear Madam

Emily Crow

Executive editor

BMC Pregnancy and Childbirth

Please find attached response to reviewers’ comments. Please see changes bellow and in the manuscript, as well (highlighted parts).

Reviewer 1

Query 1. Background section in the Abstract – causes that have been described are generally for Primary PPH rather than Secondary PPH which has traditionally been attributed to infection. It is due to further diagnostic and therapeutic options that we are coming across these newer causes of secondary PPH. This needs to be clarified somewhere in the text and the background section amended accordingly.

Answer 1: Thank you for comments that is right. We have removed mistaken sentence related to causes of PPH, just causes leading to secondary PPH have been remained see highlighted sentence in the abstract).

Query 2: I would like to believe the traditional theory that mode of delivery does not affect PPH. However, with the recent increase in the overall numbers of caesarean section that we perform and more pertinently the repeat section, IVF techniques, etc there has been increase in accrete, incretas and even percretas, that I would use this sentence with a bit of caution.

Answer 2: The relation between increase in accrete, incretas and even percretas and PPH was added in to the text, see introduction section page 3 (highlighted sentence).
**Query 3:** The authors have said that PPH is increasing in developed countries – why is this so? Perhaps lends credence to my earlier comment.

**Answer 3:** See above answer.

**Query 4:** Last sentence in Page 3 – need to find a synonym for the word “malicious” – doesn’t read well.

**Answer 4:** We found synonym.

**Query 5:** The Case Report starts with nulliparous, nulligravida – should be nulliparous but primigravida.

**Answer 5:** We changed the word

**Query 6:** I quite agree with the statement regarding difficulty in estimating blood loss and there need to be broad consensus regarding quantifying it with percentage drop in haemoglobin.

**Answer 6:** Thank you, we think so.

**Query 7:** I quite like the theory and pathogenesis of VSI. However, though rare, the diagnosis in this instance was made after hysterectomy. The authors perhaps need to explore ways to do so and yet preserve the uterus. I think a general discussion along those lines would not only be welcome but also pertinent. The last paragraph is mostly extraneous in this case report as neither of these measures seems to have been used. However they could be made more contemporaneous if diagnostic and conservative therapeutic facilities could be explored for VSI rather than after hysterectomy.

**Answer 7:** One of the diagnostic possibilities for VSI is hysteroscopy with biopsy from previous placental site. The presence of vascular subinvolution can be confirmed by the finding of EVCT (what is stated in discussion paragraph on page 6.). Last paragraph with extraneous data related to PPH management was removed.
Reviewer 2

Query 1. Author's comments on conservative measures such as the role of uterine artery embolization in such cases based on the evidence available in literature is required. What "targeted therapy" is the author recommending for vessel subinvolution?
Answer 1: Thank you for interesting question, however there is no one way targeted therapy of VSI.

Query 2: Conclusion as to what is recommended by the authors is unclear.
Answer 2: The conclusion paragraph was changed.

Query 3: Role of uterine artery pseudoaneurysm as one of the causes of severe secondary PPH needs to be elaborated further
Answer 3: Thank you for targeted comment. The mechanism of impaired vessel involution due to vessel wall disruption was included into manuscript text. Please see paragraph Introduction, page 3

Query 4: In the discussion part, detailed description of routine management of PPH has unnecessary and irrelevant.
Answer 4: Last paragraph with extraneous data related to PPH management was removed.

Yours Sincerely

Pavol Zubor Martin 7.8.2013