Reviewer’s report

Title: Clinical evaluation of prophylactic abdominal aortic balloon occlusion in patients with placenta previa accreta: a systematic review and meta-analysis

Version: 0 Date: 21 Nov 2018

Reviewer: Catherine M Albright

Reviewer's report:

Chen et al have performed a systematic review and meta-analysis of prophylactic abdominal aortic balloon occlusion in patients with placenta accreta. They report that its use is safe and effective, reducing the blood loss volume, blood transfusion volume, rate of hysterectomy, duration of hospitalization, and operative time.

Overall, I believe that a pure systematic review in order to look at the outcomes of all reported cases where an AABO was used would be very useful in order to establish safety and would be a more appropriate analysis. I worry about a meta-analysis because I imagine the groups are very different at baseline regarding who got an AABO and who did not.

ABSTRACT:

- Please include a more robust description of your methods in the abstract - what is meant by correlation studies.

- It is unclear whether you are talking about placenta previa or placenta accreta. Please clarify.

INTRODUCTION:

- Lines 51-58: Most often placenta accreta is over a prior cesarean scar. The morbidly adherent placenta can be an accreta, increta or percreta. I have not heard the term pernicious placenta previa in the past and I think this will confuse readers to use this terminology. I would say that placenta percreta does all of the things you describe.

- Please describe the advantage to not performing a hysterectomy in cases of morbidly adherent placenta. In general, we recommend that these women undergo hysterectomy because of possible future risks. Clearly, limiting blood loss during the procedure is advantageous. Perhaps this should be the main focus of your introduction.
- Please describe how an abdominal aortic balloon occlusion device works.

METHODS:
- Line 76: What is the actual search strategy? What line of code did you use (what was your retrieval formula)? Please include this as an appendix. This is important so others could potentially replicate your search.

- Line 84: What is meant by placenta previa accreta? This is not a typical phrase used.

- Line 87: It is a bit confusing when you say "patients with contraindications... were excluded." Were these studies excluded? Or were individual patients excluded?

- Line 99: Standardly you as the investigator choose either a random or a fixed effects model based on your a priori understanding of the problem at hand.

RESULTS:
- Lines 108-109: Patients chose AABO? Please describe this. I assume the physician chose.

- Line 121: Please refrain from using phrases such as "Of course..." This is adding your opinion to the results.

- I am still concerned that women are not undergoing hysterectomy with morbidly adherent placenta. This procedure cannot cure a morbidly adherent placenta.

- Line 136: Was the placenta attempted to be manually removed in those cases where AABO was utilized?

DISCUSSION:
- Further discussion about the timing of occlusion and the possible risks of occlusion are warranted. Is this similar to cross-clamping the aorta during vascular surgery cases? In that case, there is definitely concern for reperfusion injury.

- I am concerned about the studies that were included and of course, a systematic review and meta-analysis are only as good as the included studies. Because they were not randomized, it
is very likely that the groups are very different at baseline, possibly with the presumed severity of the morbidly adherent placenta. If this is not the case, please comment on this in the discussion.

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

No

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

No

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

No

**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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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