Author’s response to reviews

Title: Fetal heart rate abnormalities during and after External Cephalic Version: which fetuses are at risk and how are they delivered?

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Fetal heart rate abnormalities during and after External Cephalic Version: which fetuses are at risk and how are they delivered?

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BMC Pregnancy and Childbirth


Dear Editor,

Hereby we submit our revised version of the manuscript.

We made changes as was required in your mail from 22 December 2016.

The changes made are the following.
Editorial Comments:
- We formatted the Declarations section as outlined in the submission guidelines.
- We included the name of the ethics committee that approved our study.
- Consent of study participants was written.
- We added the date of registration to the trial registration number.
- We included a completed STROBE checklist as an additional file.

Reviewer #1: we thank the reviewer for all his/her work and helpful comments

1. We included the sentence that 2 emergency C/S were required in the abstract.

2. Per 1 gram weight difference, there is a statistically significant, albeit small, higher risk for FHR abnormalities (OR 0.99). We agree that this difference, looking at a perspective of grams, is not clinically significant. But if we look at a difference of 100 gram: if a baby weighs 100 gram more, there is 10% lower risk for FHR. This is statistically and clinically significant (OR 0.90; CI 0.86-0.95). Furthermore, if we look at a difference of 1000 gram: if a baby weighs 1000 gram more, there is 60% lower risk for FHR (OR 0.37; CI 0.22-0.63). This is statistically and clinically significant. In order to clarify this subject, we therefore changed the variable “Birth weight per gram” in “Birth weight per 100 gram”. See track changes Table 2 + abstract + manuscript.

3. We didn’t exclude the 2 emergency C/S for FHR abnormalities before our initial analysis. We agree with the reviewer that we should have excluded them. Therefore, we repeated all analysis after first excluding the 2 emergency C/S. Numbers therefore changed and are put in Track Changes in Table 1 + 2 + Figure 1 and in the text of the abstract and manuscript.

4. The difference in AFI was only significant at a univariate level, not at a multivariate level. Therefore we didn’t include this finding in the conclusion. We never advice women to fast prior to ECV. On the contrary, because we advise them to have a rather filled than an empty bladder, sometimes patients have to drink water to have their bladder filled. This helps to lift the breech out of the pelvic inlet. In our previous studies, AFI never was a significant factor for success of ECV.

5. Most of our patients with an unsuccessful ECV opted for primary C/S and didn’t go for vaginal breech delivery. So unfortunately we don’t have these data.
6. The reviewer is correct. It should be “inlet”. We made this change from “outlet” to “inlet” in the manuscript.

7. The reviewer is correct. We added “abnormalities” after FHR.

8. We changed this sentence on page 9, line 54, according to the suggestion of the reviewer.

Reviewer #2: we thank the reviewer for all his/her work and helpful comments

The lowest birth weight baby (1700 grams) indeed did not experience FHR abnormalities. However, birth weight was significantly lower in the group of babies who did experience FHR abnormalities after ECV. Because we looked at birth weight in terms of grams, this doesn’t show the clinical significance. For example: Per 1 gram weight difference, there is statistically significant, albeit small, higher risk for FHR abnormalities (OR 0.99). We agree that this difference, looking at a perspective of grams, is not clinically significant. But if we look at a difference of 100 gram: if a baby weighs 100 gram more, there is 10% lower risk for FHR. This is statistically and clinically significant. Furthermore, if we look at a difference of 1000 gram: if a baby weighs 1000 gram more, there is 60% lower risk for FHR. This is statistically and clinically significant. Therefore, we changed the variable “Birth weight per gram” in “Birth weight per 100 gram”. See track changes Table 2 + abstract + manuscript.

Predicting birth weight by ultrasound estimated fetal weight is indeed a challenge. Therefore we thought it would be better to exclude ultrasound estimation of the fetal weight and to use the actual birth weight data for analysis.

We understand the discomfort regarding to range dates. Gestational age at ECV in our study doesn’t seem to be a risk factor for FHR abnormalities during and after ECV.

Since the study of Vlemmix et al (2014, AOGS) showed there is a 45% risk of emergency C/S during an attempt of vaginal breech delivery, the preference of most of our patients with a persistent breech presentation is to opt for primary C/S. (Despite the fact that the risk of perinatal mortality seems more or less the same for vaginal breech birth as for vaginal cephalic births.)

Because women with persistent breech presentations tend to opt less frequent for primary C/S, we try to focus on further reducing the number of breech presentations at birth by performing early ECV (especially in primigravidas).

Thank you for your remark on pelvic outlet, which should be pelvic inlet.

We changed this in the revised manuscript.
We hope that our manuscript will be suitable for publication in your journal.

Looking forward to your answer,

On behalf of all the authors,

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