Author’s response to reviews

Title: Fetal weight estimation at term – Ultrasound versus clinical examination with Leopold’s manoeuvres: a prospective blinded observational study

Authors:

Oliver Preyer (oliver.preyer@tauernklinikum.at)
Heinrich Husslein (heinrich.husslein@meduniwien.ac.at)
Nicole Concin (nicole.concin@i-med.ac.at)
Anna Ridder (anna.ridder@hotmail.com)
Maciej Musielak (maciej.musielak@tauernklinikum.at)
Christian Pfeifer (christian.pfeifer2@chello.at)
Willi Oberaigner (willi.oberaigner@gmail.com)
Peter Husslein (peter.husslein@meduniwien.ac.at)

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Oliver Preyer, MD
Department of Obstetrics and Gynaecology
University Teaching Hospital Tauernklinikum Zell am See
Paracelsusstrasse 8, A-5700 Zell am See, Austria
oliver.preyer@tauernklinikum.at

Editorial Office of BMC Pregnancy and Childbirth

The Editor-in-Chief
Professor Tovah Honor Aronin, PhD
c/o BioMed Central, USA
Dear Editor-in-Chief Professor Tovah Honor Aronin,
dear appointed reviewers of BMC Pregnancy and Childbirth,

we thank the reviewers for their valuable comments and suggestions. They were of great help to improve the quality of our manuscript.

Point by point responses to the comments of the two reviewers are listed in the following:

Reviewer #1
Daynia E. Ballot

Comment 1:
Please specify how you determined gestational age. It is stated in the methods that some mothers were < 37 weeks but the title specifies Term gestation. Were these mothers excluded?

Answer to comment 1:
We thank reviewer #1 for this comment. A more precise paragraph of how gestational age was performed was missing in our previous version of the manuscript. To relate on this matter we described our setting more precisely now on page 7, lines 166-170 and on page 9, lines 232-233 of the revised manuscript. The attending specialist of the pregnant woman determines gestational
age during the first weeks of pregnancy, usually in weeks 6-10, after seeing the heart beat in an intrauterine pregnancy. The specialist is using an established calculation method (Naegelé’s rule) to calculate the estimated date of birth. After a possible correction with ultrasound during the first 12 weeks of pregnancy, the corrected estimated date of birth is noted into a maternity log, which is mandatory in Austria for every pregnant woman. There are definitely no preterm deliveries before the completed 37th week of pregnancy accepted at our department but send antenatally to a secondary referral centre. Therefore there are no data of preterm deliveries analysed in our dataset.

Comment 2:

Please explain how you determined your sample size.

Answer to comment 2:

To avoid selection bias and to perform a real live evaluation, we examined all consecutive women registered for delivery and ultimately delivered at ≥ 37 weeks. We recruited through the mentioned interval due to organisational reasons (additional human resource for data administration during that interval). We added a paragraph relating on this matter on page 7, lines 166-170 of the revised manuscript.

Comment 3:

How long after the estimation of fetal size were the babies delivered? It is stated in your methods that the actual birth weight was the gold standard. A long interval between fetal weight estimation and delivery would impact on the results. Ideally the weight estimation and delivery should occur on the same day.

Answer to comment 3:

Thank you for this valuable comment. The estimations and extrapolations were performed according to validated methods and to the best of our knowledge. The median time between estimation and birth is shown in Table 1. As we tried to illustrate a real life evaluation of our setting, extrapolations became necessary. Please see the additional paragraph on page 10, lines 238-240.
Comment 4:
Strengths and limitations are generally presented after the discussion of the main findings - before the conclusion.

Answer to comment 4:
Thank you for this hint. We now placed the paragraph with the description of strengths and limitations of our study after the discussion of the main findings and before the conclusions. They can be found now on page 19, lines 451-463 of the revised manuscript.

Reviewer #2
Assaad Kesrouani

Comment 1:
The number of midwives assessing the fetal weight. The authors indicate that they have the same professional experience than other physicians and residents. This element is still to be clarified: number of midwives, mean age in activity...

Answer to comment 1:
We are grateful for this valuable note and totally agree with the reviewer. We added a more detailed description of the experience of our team members in the methods section of our revised manuscript. This can be found on page 9, lines 208-212.

Comment 2:
Gestational diabetes is reported in 5 % of patients. This deserves further statistical evaluation for fetal weight estimation.
Answer to comment 2:

Thank you for this comment. It is correct that 5.3% of pregnant women in our cohort had gestational diabetes. Due to mandatory gestational diabetes screening during pregnancy in Austria and a close follow up after the registration for delivery at our department, we are able to state, that these 5.3% of pregnant women with gestational diabetes in our cohort were exactly monitored with blood sugar testing. Due to normal results in all 29 patients, who had either diet or insulin, the pregnancies with gestational diabetes in our cohort were comparable to normal pregnancies. We mentioned this in the revised results section, which can be found on page 12, lines 293-300.

Comment 3:

Statistical presentation is somehow simplistic and would benefit from more advanced graphics.

Answer to comment 3:

Thank you for the suggestion to improve the illustration of our results with more advanced graphics. These can be found now as Figure 2 and illustrate the results of tables 2.1 and 2.1 including 95% confidence intervals. We alluded the illustration and described it in the results section on page 15, lines 358-361.

Comment 4:

The weight of prior babies could have been asked by the midwife or the physician, and this would constitute an eventual bias.

Answer to comment 4:

We are very grateful for this comment of reviewer #2, as it helped to improve the description of our examination process in our real life evaluation. Both the midwife and the physician (sonographer) were blinded to the documentation of the weight of prior babies and pregnant women were asked not to disclose this information to avoid bias. This complemented paragraph can be found on page 8, lines 191-193.
Comment 5:

Disclosure of the fetal estimation by the patient itself is a possibility that has not been pointed out by the authors as a bias.

Answer to comment 5:

Thank you for this comment. It also helped to improve the description of our examination process in our real life evaluation. The answer to this comment is congruent with the answer to comment 4 and we addressed it in the same sentence of the complemented paragraph, which can be found on page 8, lines 191-193, mentioning that pregnant women were asked not to disclose this information to avoid bias.

Additional corrections:

Editing was improved throughout the manuscript.

All changes of the revised manuscript are highlighted in yellow.

We hope that the reviewers and editors consider the revised manuscript appropriate for publication in BMC Pregnancy and Childbirth.

Kind regards,

Oliver Preyer, MD