Author’s response to reviews

Title: PREVALENCE, OUTCOMES AND ASSOCIATED FACTORS OF LABOR INDUCTION AMONG WOMEN DELIVERED AT PUBLIC HOSPITALS OF MEKELLE TOWN – A HOSPITAL BASED CROSS SECTIONAL STUDY.

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Author’s response to reviews:

Reviewer 1:

Comment 1:
Major editing of the grammar and English is required prior to publication. Many words are unnecessarily capitalized and incomplete sentences and fragmented paragraphs are found making the transcript difficult to read.

Response 1:
English language was revised, being in low resources setting with poor internet access and no Banks with international visa cards provisional editing services could not be possible.

Comment 2:
The indications and success rates of preterm induction as well as outcomes are likely to be very different from term induction therefore it is not valid to analyze them together.
Response 2:

It is true that success rate and outcomes of preterm induction are likely to be different, but for this study misoprostol was mainly used rather than Oxycontin for preterm inductions having in mind less responsiveness of the uterus to Oxycontin in preterm gestation.

Comment 3:

In Table 2 there are 32 fetuses who were IUFD before induction in Table 6 there are 2 IUFD and 344 not. In Table 7 it is 31 IUFD. The neonatal outcome denominator needs to be of the liveborn infants.

Response 3:

Local protocols do not recommend Cesarean section for anomalous fetus except few of cases (e.g. Conjoint Twin), therefor this cases were studied for success rate and other maternal outcomes since fetal outcomes were already known before induction.

Comment 4:

Also comparing neonatal outcomes of term and preterm infants is not valid as NICU and complications related to prematurity will be higher in the preterm group and not necessarily related to mode of delivery or induction

Response 4:

The other 2 IUFDs in table 6 were intrapartum fetal deaths unlike those the IUFDs diagnosed before labor in table 2.

Comment 5:

Also comparing neonatal outcomes of term and preterm infants is not valid as NICU and complications related to prematurity will be higher in the preterm group and not necessarily related to mode of delivery or induction.
Response 5:

Most of the preterm inductions were done either because of IUFD or Hypertensive disorders in pregnancy remote from term whereby the sole reason for induction was to save the life of the mother. Table 6 included only 2 intrapartum fetal deaths in the analysis of neonatal outcomes.

Comment 6:

There is no information on prior scarred uterus (were they included in the cohort?) that would also impact the outcome.

Response 6:

National guideline of Ethiopia as well as many African countries do not recommend induction after previous cesarean section, that is why they were excluded.

Comment 7:

I would recommend looking at induction of term live infants and maybe useful comparative data will be obtained.

Response 7:

I disagree with this recommendation.

Reviewer 2 Comments:

Comment 1:

The paper is generally well written but would benefit form and English language edit. A few examples include P7 Line 8 Achondroplasia, P7 Line 56 catheter.
Response 1:
Corrected

Comment 2:
The abstract 'method' should have a little more information about the data gathering method and less about the SPSS analysis which can be covered in the main body of the paper.

Response 2:
Corrected

Comment 3:
I assume PROM is not 'premature' rupture of membranes. It should be 'prolonged' rupture of membranes. This error is repeated in several locations throughout the paper.

Response 3:
Corrected

Comment 4:
The word 'setup' is a bit unusual - perhaps institutions or organizations would be a better word.

Response 4:
Corrected

Comment 5:
It would be useful to have the annual delivery rate at the two hospitals stated rather than the population sizes served.
Response 5:
Corrected

Comment 6:
Table 9 - Although a p-value of 1.0 is potentially possible it should probably be 0.9999 to avoid further criticism.

Response 6:
That was SPSS computation.

Reviewer 3 Comments:
Comment 1:
Please indicate the quality of language in the manuscript: Needs some language corrections before being published.

Response 1:
English language was revised, being in low resources setting with poor internet access and no Banks with international visa cards provisional editing services could not be possible.

Comment 2:
However, some aspects need to be clarified - especially regarding women with previous caesarean sections, one maternal death and the high number of neonatal deaths.

Response 2:
a. Local guidelines in Ethiopia as well as many African countries do not allow induction after cesarean section
b. This mother was admitted for induction for the indication of APH, she delivered vaginally but had postpartum hemorrhage.

c. Intrapartum fetal deaths were only two the rest were diagnosed as IUFD before induction.

Comment 3:
PG3 L 29 - close the”
Response 3:
Corrected.

Comment 4:
PG 3 L32 - all of which are not recommended by the Ethiopian national guideline for induction. Then, what is the conduct recommended by the Ethiopian national guideline for induction?

Response 4:
The guideline recommend only cesarean section after declaration of failed induction.

Comment 5:
Describe in the methods the size of the hospital, the number of obstetric beds, the trained professionals in obstetric care who work in the care of pregnant women for both hospitals .

Response 5:
Corrected

Comment 6:
Clarify how the sample size was calculated
Response 7:
Sample size calculation formula added.

Comment 8:
Clarify what is considerate a favorable Bishop.

Response 8:
clarified in the text.

Comment 9:
Did any women have previous Cesarean sections?

Response 9:
No, Cesarean section is a contraindication for induction as per the local national guideline.

Comment 10:
P7 L 44 - Maybe this line is unnecessary

Response 10:
omitted

Comment 11:
P9 L4 - For those who were initiated on oxytocin infusion, 81 (37.9%) were maintained at the second dose, 58 (27.1%) at the third and maximum dose and 17 (7.9%) at the first dose. - clarify what is the first, second, third and maximum dose - this have to be in the method section.
Response 11:

Corrected

Comment 12:
Both tables can be presented in a single table.

Response 12:
Maternal and fetal perinatal outcomes are represented in this two table so, I prefer to keep them both.

Comment 13:
I suggest keeping tables 7 and 10 and removing tables 8 and 9

Response 13:
Both tables represents different outcomes.

Comment 14:
Please explain how multivariate regression was performed in the methods

Response 14:
Explained in the text.

Comment 15:
The number of fetal and neonatal deaths is high compared to other studies.
Response 15:
This can be explained by high number of intrauterine fetal deaths in the region compared with the other regions in Ethiopia.

Comment 16:
Considering the local reality, it would be interesting to compare induced and spontaneous births. Or at least cite these cases in the discussion comparing with other local and international data.

Response 16:
The study was not powered to compare between the induced and spontaneous births.

Comment 17:
The maternal death should be better presented. Was the cause of death related to induction?

Response 17:
The only maternal death in this study was a multiparous who was induced and delivered successfully vaginally. She developed refractory PPH immediately after delivery and measures including Bi-manual compression of the uterus, B-Lynch and final total abdominal hysterectomy were done. She was admitted and died in the ICU the second day.