Author’s response to reviews

Title: EPIDURAL ANALGESIA AND ITS IMPLICATIONS IN THE MATERNAL HEALTH IN A LOW PARITY COMMUNITY

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Corrections in the revised paper recommended by the reviewers:

Reviewer Hui-xia Yang, PhD., MD.

1. Our study was able to demonstrate that primiparity and new-born weight over 4000g are significant risk factors for SPT, similarly to other studies (10,28). Both variables are considered biological risk factors for SPT development, as well as for frequent indication factors for epidural analgesia use, which could possibly mislead to a wrong association between epidural analgesia and SPT. Furthermore, our study shows that primiparity is a risk factor for CS, instrumental delivery and abnormal foetal head position at delivery and similarly the new-born weight over 4000g ended up also being considered as a risk factor for CS, instrumental delivery but not for abnormal foetal head position at delivery. There is a need for further studies in order to establish the specific weight of these risk factors into leading to the development of mechanical adverse outcomes at delivery.

2. a. Methods line 21: Data for this study were retrieved from the computerized datasets of the hospital. Women were included in this study if they were admitted with a singleton pregnancy and delivered vaginally. Exclusion criteria included multiple gestations, elective caesarean section, preeclampsia, gestational diabetes or preterm delivery (defined as gestational age of less than 37 weeks), as well as home deliveries or births not occurring on a labour and delivery unit (out of hospital settings).
2. b. Results line 41: Epidural analgesia was administered in 68.24% of births (n=15,821), ...

2. c. Discussion line 41: The most relevant outcomes in this present study are: epidural analgesia is not an independent risk factor for SPT, but it is for instrumental delivery, CS and abnormal foetal head position at delivery. (terrible typing mistake)

3. Introduction: Instrumental delivery is associated with severe perineal tears (SPT) in a good percentage of vaginal deliveries,

4. Background: Instrumental delivery is associated with severe perineal tears (SPT) in a good percentage of vaginal deliveries, resulting in short- and long-term perineal pain, dyspareunia, urinary incontinence, voiding and defecatory dysfunction, as well as urinary and bowel incontinence (fecal or gas incontinence or both). SPT, defined as third- and fourth-degree perineal lacerations, appear to have an immediate impact on pelvic floor muscle function.

5. New-born Weight:

Table 1. Maternal characteristics by use of epidural analgesia....

....Epidural yes 3280 ± 420g   Epidural No: 3004 ± 670g,   p<0.001....

Reviewer Georg-Friedrich von Tempelhoff

1. In our Hospital, the rate of epidural analgesia during labor is greater than 60%, a percentage that is very similar to Hospitals in the USA and higher than other European Hospitals, since we have a full time anaesthesiologist available for the Obstetrics department and we have not received complaints from this Department as far as the length of labor is concerned, when epidural analgesia is provided.

2. Epidural analgesia is administered to the patient upon Obstetrics department request, when the patient has nothing that contra-indicates its use, normally when cervix is approximately 4 to 5 cm dilated (late epidural analgesia). We deliver 10ml bolus of Ropivacaine 0.2%™ plus Fentanyl™ 50 mcg, and then a continuous Ropivacaine 0.2% plus Fentanyl™ 1 mcg/ml infusion (6-10ml/h) or an initial bolus of 10 ml Levobupivacaine 0.125 %™ plus 50 mcg Fentanyl™, followed by continuous infusion of Levobupivacaine 0.0625%™ plus 1mcg/dl Fentanyl™ (6-10ml/l); both options can be followed by intermittent perfusion of 5ml with 20 minute lockout time.

3. Discussion
The most relevant outcomes in this present study are: epidural analgesia is not an independent risk factor for SPT, but it is for instrumental delivery, CS and abnormal foetal head position at delivery. (terrible typing mistake)

4. Table 5, Univariate and Multivariate logistical models of predictors of abnormal foetal head position at delivery.

....Weight > 4000 g,....p value: <0.051 (typing mistake)

5. Since the present study is consisted of an anonymous retrospective analysis and due to the non-identification of patients, there was no need for individual informed consent from patients.