Reviewer’s report

Title: Hemodynamic effects of lateral tilt before and after spinal anesthesia during cesarean delivery: an observational study.

Version: 0 Date: 25 Aug 2017

Reviewer: Aylin Ozdilek

Reviewer's report:

MAJOR REVISIONS

Hemodynamic effects of lateral tilt in full-term pregnant women: a before-after study

1- The title can be more explanatory if "spinal block" is added. For example: Hemodynamic effects of lateral tilt before and after spinal block in full-term pregnant women: an observational study

2- Stating the type of hemodynamic monitoring system ("electrical cardiometry" in this study) in the abstract section would be preferable in order to understand the study design.

3- Abstract-results- line 33: "After SAB, there was a significant decrease in mean arterial pressure, cardiac output, stroke volume, and systemic vascular resistance." It is unclear in which position this "decrease" occurs.

4- Hemodynamic monitoring systems are various, and every system has different sensitivity and accuracy. Stating the type of hemodynamic monitoring system used in this study at keywords section would be helpful for citation matters.

5- Diabetes and cerebrovascular diseases can compromise hemodynamic response, but these diseases are not stated in the "exclusion criteria". (line 61-64). Were there any patients included in this study with these diseases?

6- Line 75: Which crystalloid fluid was used?

7- Capital/small letters are missused in some words. Ex: authors section; lines 24, 75, 81, 104, 205 etc.

8- Some abbreviations are not explained in the text. Ex: line 61ASA, 62 BMI, 66 ECG, 67 CO, 85 SBP, 92 MAP etc.

9- Pregnancy is an ASA II score.

10- It is not clear whether measurements performed after delivery were performed after or before oxytocin administration.
11- Outcomes Lines 91- 95: It is stated that total ephedrine dose, age, BMI, weight of the baby, and blood loss are other outcomes. There has to be a kind of comparison between, in order of some data to be an outcome. There is not any information about these data (except maternal age, line 108), moreover nor any comparison. If there is not any statistical comparison of these data, they can be presented as an "additional collected data".

12- Line 116-117: It is not clear how the "significant difference" is determined. Which data was compared to: supine position before spinal block compared to supine position after block?: supine position before spinal block compared to tilt position after block?: supine position after block compared to tilt position after block?

13- Lines 117-119: "When tilting was performed after SAB; there was a significant increase in CO, heart rate, and MAP in 15° and 30° angles compared with 0° position." 0° position before spinal block or 0° position after block?

14- Lines 120-121: "a significant increase in MAP, CO, and SV after delivery" compared to 0° position before spinal block or 0° position after block or 15 degree after spinal block or 30 degree after spinal block?

15- Lines 135-136: Higuchi et al (1) reported that inferior vena cava volume increased at both 30 and 45 degree tilting.

16- Discussion, Before SAB, Lines 132- 149: There is conflicting data about tilting position and hemodynamic changes at pregnant women. Discussed studies here used different tilt degrees. This can be one of the reasons of different findings and this data should be stated at discussion part. Another reason of different findings can be the different hemodinamic monitors. Ex: Lee at al (2) used suprasternal dopler to measure cardiac output. It would be appropriate to state the monitoring system used, when citation is made for clear comparison and effective discussion.

17- Lines 146-147 "...they observed a decreased IVC diameter with LLT in 25% of the patients": That is not actually what Fields at al (3) stated. Their finding was described like this: "In addition, our study found evidence supporting the theory of IVC compression by the gravid uterus as the majority of patients had an increase in IVC max with tilting(LLT and RLT). Interestingly, we also discovered that nearly a quarter of patients had a decrease in IVC size when moved away from supine challenging the idea that uterine IVC compression occurs universally." (discussion section, page 307 ) "However, nearly a quarter of third trimester patients had the largest IVC in supine." (conclusion section, page 308)

18- What is the corresponding authors name? Yasmin Hassabelnari or Yasmin Hassab Enaby?
References:


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

Yes

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

Yes

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

Yes

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.

Not relevant to this manuscript

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