Reviewer's report

Title: Minimally Invasive Spinal Anesthesia for Cesarean Section in Maternal Anticoagulation Therapy: A Randomized Controlled Trial

Version: 0 Date: 24 Oct 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are minor issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are minor issues

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Could an appropriately REVISED version of this work represent a technically sound contribution?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The findings of the study would help the anesthesiologists choose the better anesthetic and procedural alternative during parturition.
The authors have chosen the gold standard research design i.e. double-blind randomized controlled study with the registration in the appropriate clinical trial registry. They have also analyzed the data and shown the table clearly.

The authors have not taken the equal number or more number of control group compared to the experimental group. This has compromised the internal validity (i.e., conclusive association of outcome with the independent variables) and external validity (i.e., generalizability) of the study.

ADDITIONAL REQUESTS/SUGGESTIONS:

General comments:
Use past tense in Methods.
China also belongs to Asia.
Use full form of PCA.
Keep the p value when you mention the term 'significant difference' or 'no significant difference'.
The term 'VTE' seems better for venous thromboembolism rather than 'VET'.

Specific comments
Abstract:
Methods: Number of control group should be at least equal to the experimental group or should be in the ratio of 2:1 or 3:1 or 4:1.

Background:
Elaborate what was the suggestion of the WHO in the sentence "… CSR was far higher than suggested by WHO."

Only one reference has been cited in the sentence "Several research studies revealed that at least half of the pregnant women is affected by LBP[7]."

Rewrite the sentence "Also investigate the use of 27gauge Quincke needles and 22gauge Quincke needles for spinal anesthesia on PDPH and LBP in parturients with anticoagulation therapy undergoing cesareean section" clearly.
Methods:

Elaborate the formula employed for sample size calculation.

Confirm whether it was Wilcoxon rank sum test or Mann-Whitney U test.

Results: Confirm the sample size in the sub-section "Demographic, physiologic and surgical characteristics". It seems that sample size was 166 from the statement.

Discussion:

Rewrite the sentence "Previous literature concluded that the anticoagulants contraindicated to spinal/epidural anesthesia" with reference to that literature.

Keep the sentence "Because of the difficulty in studying … performed on any parturient" on 'Limitation of the study' section.

Cite other references to support the sentence "Previous studies have indicated … related to the decrease of pain perception or responses due to aging[17]."

Cite references of those studies to support the sentence "The conclusions drawn by previous studies showed discrepancies."

Check and confirm the citation in the sentence "In contrast, Kim M and Kim HK, respectively reported no difference in 1-3 days after punctures with different needles[15]."

Rewrite the sentence "The use of anticoagulant therapy during pregnancy was cautious because of the potential for both fetal and maternal complications" clearly.

Cite those references to support the statement "… randomized control trials in vitro and in vivo studies was inconsistent."

Keep the last paragraph "Insufficient sample size was the main limitation … explore the cause and mechanism in future study" in 'Limitation of the study' section.

References: Rewrite references 13, 21 and 23 clearly.

Note: This reviewer report can be downloaded - see attached pdf file.
Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.

No

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

No

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

No

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

Quality of written English  
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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