OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

Anesthesiology and Pain Medicine
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Peer Review Report for "Effects of General Anesthesia Versus Spinal Anesthesia on Serum Cytokine Release after Cesarean Section: A Randomized Clinical Trial"

Author(s): Maryam Vosoughian, Mastaneh Dahi, Shideh Dabir, Mohammadreza Moshari, Soodeh Tabashi, Zahra Mosavi

Review Timeline:

Submit Date: 24 Nov 2020
Revised Date: 18 Feb 2021
Accepted Date: 18 Feb 2021

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Amir-aziz Saif: Reviewer | **Revision** (0) 18 Dec 2020

Dear AE,
Although this article has minor problems, I am not agreeable with its topic, because it is neither noble nor special or supereminent.
It has been known from many years ago in texts and literature that GA can evoke inflammatory responses supreme to neuraxial or regional methods. So, why is the reason or importance of doing this reseach?!
The following suggestions are my opinion:
1) Why after delivery in GA group, 200 micg Fentanyl has been given? Is it per/kg or there is another reason?
2) The references are so brief (only 14 items).
Thanks.

REFEREE: Reviewer | **Revision** (0) 19 Dec 2020

Dear AE,
Comments for the authors:
1- How did the conductors of the study calculate the total of 30 parturient for the study? (Sampling size method)
2- What age range of cases included in the study?
3- Duration of surgery has not been mentioned to be compared in two groups.
4- Did any patients' body mass index (BMI) affect how the study was performed and its result?
5- It is better to draw a consort flowchart for enrollment of the cases.
6- Maintenace dose of atracurium is 0.15 mg/kg instead of 0.5mg/kg (Methods' part).
7- Why did the conductors of the study include emergency cases considering that it may affect the results?
8- Table 2 can be deleted as all information has been shown in table 3.
9- What is the reference of the first paragraph of discussion part?
10- Any conflict of interest should be noted in the manuscript.
Thanks.

REFEREE: Reviewer | **Revision** (0) 19 Dec 2020

Dear AE,
Comments for the authors:
1-Avoid summarizing phrases in the text (cs)
2- In the introduction, the mechanism of increase of ck during surgery and the importance of investigating this issue should be fully explained
3- Based on which reference did you set the length of two hours of surgery as a criteria for entering the plan?
4- In the last line of the result section, there should be no difference between ck, in which stage was it?
5- Please provide a consort table
6- Most references are outdated
7- The duration of surgery and the number of usage opioids and pain score are the essential variables in this plan that are not mentioned.
Thanks

REFEREE: Associate Editor | **Revision** (0) 20 Dec 2020

Dear EIC
The manuscript needs MAJOR revision.
Thanks.

REFEREE: EIC | **Revision** (0) 27 Dec 2020

Dear Author,
The reviewers' comments are mentioned. Please correct the details as mentioned above carefully according to reviewers' request.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

To editor-in-chief of Anesthesiology and Pain Medicine

Thank you for sending the manuscript no. 111272 entitled “General anesthesia vs. spinal anesthesia on serum cytokine release after cesarean section: A randomized clinical trial “for revision. A one –by-one response to reviewer’s comments are provided as follows. The corrected parts are highlighted in yellow in the revised version of the manuscript.

Best regards

Dr. Mastaneh Dahi (corresponding author)

Response to reviewer’s comments:

Reviewer 1:

1-How did the conductors of the study calculate total of 30 parturient for the study? (Sampling size method). **The method of sample size calculation has been mentioned in the Methods section.**

2-What age range of cases included in the study?

It was added to the text in result section and table 1.

3-Duration of surgery has not been mentioned to be compared in two groups.

It was added to the **table 1.**

4*-Did any patients’ body mass index (BMI) affect how the study was performed and its result?*

There was no significant difference in BMI between two groups. The BMI values are added to the table 1.

5-It is better to draw a consort flowchart for enrollment of the cases.

It was added to manuscript as figure 1.

6-Maintenace dose of atracurium is 0.15 mg/kg instead of 0.5mg/kg (Methods’ part).

It was a righting mistake and was corrected.

7-Why did the conductors of the study include emergency cases considering that it may affect the results?
We explained it in the discussion section as a weakness of our study.

8-Table 2 can be deleted as all information has been shown in table 3.

There are two different information in each table. Table 2. Shows comparison of serum cytokines concentrations before and 30 minutes after cesarean section in <u>each study group,</u> whereas table 3 shows comparison of serum cytokines concentrations <u>between the two study groups</u>.

9-What is the reference of the first paragraph of discussion part?

The reference number was inserted in the text and It was mentioned at the end of manuscript.

10-Any conflict of interest should be noted in the manuscript.

It was mentioned at the end of manuscript.

Reviewer 2

1-Avoid summarizing phrases in the text (cs).

It was done.

2-In the introduction, the mechanism of increase of ck during surgery and the importance of investigating this issue should be fully explained.

It was added to introduction section.

3-Based on which reference did you set the length of two hours of surgery as a criteria for entering the plan?

Regarding the possibility that a longer surgical duration might be equivalent to greater manipulation of the viscera and greater complexity of the procedure and so higher release of inflammatory factors. It should be noted that the normal duration of this type of surgery is usually 1 to 2 hours. The explanation was added to the Method section.

4-In the last line of the result section, there should be no difference between ck, in which stage was it?

We just measured cytokines level once 30 minute after entering to recovery room. The values considered by the reviewers are related to the ratio of changes in the ratio of IL-6 levels to change in IL-10 levels and ratio of changes in TNFα to changes in IL-10 levels.

5-Please provide a consort table.

The consort flowchart was added to the manuscript as figure 1.

6-Most references are outdated.

Some new references were added to the article.

7-The duration of surgery and the amount of usage opioids and pain score are the essential variables in this plan that are not mentioned.

The amount of surgery duration was added to the table 1. In the Discussion section we have mentioned that although our patients received 200 mg diclofenac suppository for postoperative pain control, lack of assessment of pain scores could be a weakness of our study. We also mentioned that measurement of cytokines 30 minutes after entering to the recovery room might reduce the possible effects of pain on cytokine release.

Reviewer 3:

It has been known from many years ago in texts and literature that GA can evoke inflammatory responses supreme to neuraxial or regional methods. So, why is the reason or importance of doing this reseach?!
There is significant controversy about the effect of type of anesthesia on cytokine release, but in

particular, studies in cesarean population are limited and the results are varied. This explanation was also added to the last paragraph of the Introduction section.

1) Why after delivery in GA group, 200 micg Fentanyl has been given? Is it per/kg or there is another reason?

The correction was made in the Method section of the manuscript.

2) The references are so brief (only 14 items).

More relevant references were added.

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Revision (1)

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REFEREE: Associate Editor | **Revision (1)** 11 Feb 2021

Dear EIC,
Fortunately, the author could reply to the majority of the requested items and correct them. However, there are still two main concerns as below:
1) The too-small sample size seriously has a significant impact on the quality of this attractive article.
2) From 25 references, there are 22 references in the background and only three at the discussion. For professional scientific writing, the discussion is the main part, and usually, the majority of the references (at least more than %50) should be included in the discussion section. Dear authors, it is recommended to include a higher proportion of references in the discussion section. Also, consider and add below three references:
- Papa A, Di Dato MT, Buonavolonta P, Saracco E, Salzano AM, Casale B. Clinical Management of Il-6 Driven Cytokine Storm Related to COVID-19 in a Patient with Recent Spinal Cord Stimulator Implants: A Case Report. Anesth Pain Med. 2020;10(4):e104151.
- Jafarzadeh A, Hadavi M, Hassanshahi G, Rezaeian M, Vazirinejad R. General Anesthetics on Immune System Cytokines: A Narrative Review Article. Anesth Pain Med. 2020;10(4):e103033.
- Aryana P, Rajaei S, Bagheri A, Karimi F, Dabbagh A. Acute Effect of Intravenous Administration of Magnesium Sulfate on Serum Levels of Interleukin-6 and Tumor Necrosis Factor-? in Patients Undergoing Elective Coronary Bypass Graft With Cardiopulmonary Bypass. Anesth Pain Med. 2014;4(3):16316.
Regards

REFEREE: EIC | **Revision (1)** 11 Feb 2021

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs minor revision. Please follow their comments as requested.
Thanks.

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

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Best regards

(corresponding author)

Response to reviewer’s comments:

1) *The too small sample size seriously has a significant impact on the quality of this attractive article.*

The method of sample size calculation has been mentioned in the Methods section. In addition, the number of samples in some of the studies mentioned in the text (with reference) is 14(12), 35(23), 40(18), 30(20) and 48(24). However, due to financial constraints, research has been conducted on this number of samples.

2) From 25 references, there are 22 references at background, and only three at discussion. For professional scientific writing, discussion is the main part, and usually the majority of the references (at least more than %50) should be included in the discussion section.
It was corrected.

Dear authors, it is recommended to include a higher proportion of references in the discussion section. Also, consider and add below three references:
- Papa A, Di Dato MT, Buonavolonta P, Saracco E, Salzano AM, Casale B. Clinical Management of Il-6 Driven Cytokine Storm Related to COVID-19 in a Patient with Recent Spinal Cord Stimulator Implants: A Case Report. Anesth Pain Med. 2020;10(4):e104151.
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- Aryana P, Rajaei S, Bagheri A, Karimi F, Dabbagh A. Acute Effect of Intravenous Administration of Magnesium Sulfate on Serum Levels of Interleukin-6 and Tumor Necrosis Factor-? in Patients Undergoing Elective Coronary Bypass Graft With Cardiopulmonary Bypass. Anesth Pain Med. 2014;4(3):16316.
Sure. with pleasure. Two related articles were added.

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (2) 18 Feb 2021

Dear AE,
I read this revised format (ID#111272), and now it can be considered an acceptable article for publishing.
Sincerely

REFEREE: Associate Editor | **Revision** (2) 18 Feb 2021

Dear EIC,
Based on reviewers' comments the submitted manuscript as titled "General anesthesia vs. spinal anesthesia on serum cytokine release after cesarean" author could correct the requested items, and now it has been appropriate.
Regards

REFEREE: EIC | **Revision** (2) 18 Feb 2021

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.