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
Article DOI: 10.5812/aapm.106220
Published in: Anesthesiology and Pain Medicine: 10(5); e106220

Peer Review Report for "The Impact of Optimal Dose of Ketamine on Shivering Following Elective Abdominal Hysterectomy: A Randomised Comparative Study"

Author(s): Saghar Samimi Sadeh, Elham Hashemi, Reza Aminnejad, Ehsan Bastanhagh

Review Timeline:

Submit Date: 13 Jun 2020
Revised Date: 17 Jul 2020
Accepted Date: 18 Aug 2020

Revision (0)

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

Alireza Mirkheshti: Reviewer | Revision (0) 23 Jun 2020

Dear AE,
There are some comments which should be addressed by the author:
Abstract:
- The side effects which the authors noticed are not clear in this part.
- It is not obvious if there are differences between the two groups of ketamine about the incidence of shivering and side effects.
Methods and Results:
- It is recommended that a consort chart be designed to specify the patients' status during the study.
- The sedation grade should be explained in the method part.
- What was the plan for intraoperative temperature control?
- Why was the tympanic temperature in ketamine groups different from the normal saline group?
Discussion:
- The authors should explain more about their different results of sedation scores between 2

groups of ketamine in comparison with other studies.
- The effects of ketamine on body temperature should be explained more in this part.
- Some significant side effects of low-dose ketamine should be mentioned and discussed more in this part.
References:
- Reference under the number 15 does not exist in the text.
Finally, it is recommended for English editing.
Thanks.

Ardeshir Tajbakhsh: Reviewer | **Revision** (0) 23 Jun 2020

Dear AE,
There are some comments which should be addressed by the author:
Title
- The title is proper hence it lacks mentioning being an RCT. It reflects the content properly without using any abbreviation. But the subject is not of much importance as a systematic review has been done in 2019 with the same goal.
Abstract
- The structured abstract contains 213 words, with good keywords, and describes the content accurately.
Introduction
- The introduction is well written although small typos are presented which are described in the comments of the article.
Materials And Methods
- Design is well described, though, it lacks mentioning sample size calculation.
Results
- Results are not described in a good manner. A demographic table should be presented with a flow diagram. Also, two tables in the text are cumbersome and need major correction in order to demonstrate the main results.
Discussion
- The discussion section is relevant with a justified conclusion.
References
- Reference number 15 is not mentioned in the text but they are appropriate and indicated in the parenthesis.
General Review
- The article is written in proper style with proper grammar and writing. The discussion section could be described better.
Thanks.

REFEREE: Reviewer | **Revision** (0) 25 Jun 2020

Dear AE,
- The subject is not novel but the study is well designed and could be used to further the boundaries of science. The weakest part of the study is the tables presented in the result section. which should be modified.
- Also, the discussion section could be described by the differences observed between the three groups.

Thanks.

REFEREE: Associate Editor | **Revision** (0) 25 Jun 2020

Dear EIC,
With greetings, according to the reviewers' comments the submitted manuscript needs to be revised.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 25 Jun 2020

Dear EIC,
The authors should consider and add below three references:
- Imani F, Varrassi G. Ketamine as Adjuvant for Acute Pain Management, Anesth Pain Med. 2019;9(6):e100178.
- Imani F, Rahimzadeh P, Faiz H, Abdullahzadeh-Baghaei A. An Evaluation of the Adding Magnesium Sulfate to Ropivacaine on Ultrasound-Guided Transverse Abdominis Plane Block After Abdominal Hysterectomy, Anesth Pain Med. 2018;8(4):e74124.
- Imani F, Faiz HR, M Sedaghat, Hajiashrafi M. Effects of Adding Ketamine to Fentanyl Plus Acetaminophen on Postoperative Pain by Patient Controlled Analgesia in Abdominal Surgery. Anesth Pain Med. 2014;4(1):e12162.
Regards

REFEREE: EIC | **Revision** (0) 25 Jun 2020

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 (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.

Dear EIC

Thank you for valuable recommendation and considerations, we've tried to use them and correct our manuscript according to your comments.

Sincerely

Reviewers' Comments:

Reviewer 1:

Title

The title is proper hence it lacks mentioning being a RCT. It reflects the content properly without using any abbreviation. But the subject is not of much importance as a systematic review has been done in 2019 with the same goal. Thank you for your comment, we have changed our title to: The Impact Optimal Dose of Ketamine has on Shivering Following Elective Abdominal Hysterectomy, A Randomised Comparative Study

Abstract

*The structured abstract contains 213 words, with good keywords and describe the content accurately.*Thank you.

Introduction

*Introduction is well written although small typos are presented which are described in the comments of the article.*Thank you for your comment we editedd the introduction again

Materials And Methods

Design is well described, though, it lacks mentioning sample size calculation.

Thank you for your comment we mentioned that.

Results

Results are not described in a good manner. A demographic table should be presented with a flow diagram. Also two tables in the text are cumbersome and need major correction in order to demonstrate main results. Thank you for your comment edited our results and modified tables as we could.

Discussion

Discussion section is relevant with justified conclusion.

Thank you

References

Reference number 15 is not mentioned in the text but they are appropriate and indicated in the parenthesis. Thank you for comment that was typing mistake we correct that.

General Review

The article is written in proper style with proper grammar and writing. The discussion section could be described better. Thank you for comment we have tried to improve that and changed part of discussion.

Reviewer 2:

Abstract:

- The side effects which the authors noticed are not clear in this part. Thank you for comment, we edited that : Post-operative shivering, sedation grade, hallucination, nausea, vomiting and nystagmus were measured for each patient up to 30 minutes.

- It is not obvious if there are differences between the two groups of ketamine about the incidence of shivering and side effects. Thank you for comment, we added that : The main differences for patients receiving ketamine related to the sedation grade at time

zero and the post-operative hallucination suffered by those patients who had received 0.5 mg/kg of ketamine.

Methods and Results:

- It is recommended that a consort chart be designed to specify the patients' status during study. Thank you for comment, we make a teble

- The sedation grade should be explained in the method part. Thank you for comment, we did it: "The level of sedation was evaluated on 5 points scale as follow; 0: Alert, 1: Arouse to voice, 2: Arous to verbal command, 3: Arous with vigorous tactile stimulation, 4: No response to vigorous tactile stimulation."

- What was the plan for intraoperative temperature control? Thank you for comment, we added it: whenever the temperature was under 36 ° C, forced air warmer was used.

- Why was the tympanic temperature in ketamine groups different from the normal saline group? Thank you for comment, we explained it in the introduction and discussion as below: **introduction** : Ketamine is a competitive N-methyl-D-aspartate (NMDA) receptor antagonist. It is involved in the regulation of heat. In rats, NMDA agonist increases the rate of neuronal discharge in the anterior hypothalamic pre-optic region. The NMDA receptors act by modulating serotonergic and noradrenergic neurons in the locus ceruleus (9). Ketamine probably regulates shivering by producing non-vibration induced heat, acting on the hypothalamus and beta-adrenergic effects (10). **discussion**: Most of the general anaesthetic agents alter our thermoregulation by decreasing our core temperature. Ketamine does this by increasing plasma norepinephrine and peripheral arteriolar constriction (5, 16), as we found the higher tympanic temperature in ketamine groups than those patients who received the placebo.

Discussion:

- The authors should explain more about their different results of sedation score between 2 groups of ketamine in comparison with other studies. Thank you for comment,we did it: This study showed that ketamine, at both 0.25 mg/kg and 0.5 mg/kg, might reduce post-operative shivering after elective abdominal hysterectomy. The

difference between the two groups that received ketamine was not significant. The study found that the lower concentration of ketamine (0.25 mg/kg) equated to a lower rate of hallucination and sedation score compared with 0.5 mg/kg ketamine. The nystagmus status was similar in both ketamine groups.

- The effects of ketamine on body temperature should be explained more in this part. *Thank you for your comment we did it:* Most of the general anaesthetic agents alter our thermoregulation by decreasing our core temperature. Ketamine does this by increasing plasma norepinephrine and peripheral arteriolar constriction (5, 16), as we found the higher tympanic temperature in ketamine groups than those patients who received the placebo.

- Some significant side effects of low dose ketamine should be mentioned and discussed more in this part. Thank you for your comment we did it: Gupta et al. showed that ketamine alone, and in combination with midazolam, was more effective than a placebo at preventing shivering for patients following spinal anesthesia (19). Kose et al looked at the effect of ketamine on post-operative shivering. It showed that there is a relationship between a higher dose of ketamine and a higher sedation score (20). Our study also found a higher sedation score when 0.5 mg/kg ketamine was given to patients as opposed to 0.25mg/kg.

Findings by Zhou et al were not completely in line with this result. The study found that nausea and vomiting in the ketamine groups were similar to the placebo group. That conflicts with this finding. They showed that there are more patients suffering from hallucination in the 0.5 mg/kg ketamine group compared with those who took a placebo or 0.25 mg/kg ketamine. Their results on the efficacy of ketamine in the reduction of post-operative shivering were similar to these findings (21).

References:

- Reference under the number 15 does not exist in the text. thank you for your comment

we corrected it, that was typing mistake.

Finally, it is recommended for English editing. thank you for your comment we did it.

Reviewer 3:

*The subject is not novel but the study is well designed and could be used to further the boundaries of science. The most weakest part of the study is tables presented in result section. which should be modified.*thank you for your comment we did it.

Also the discussion section could be described by the differences observed b etween three groups. Thank you for your comment we edited that : This study showed that ketamine, at both 0.25 mg/kg and 0.5 mg/kg, might reduce post-operative shivering after elective abdominal hysterectomy compared with the placebo. The difference between the two groups that received ketamine was not significant. There was a significant difference in the frequency of nausea, vomiting and nystagmus between the two ketamine groups compared to the normal saline group. The study found that the lower concentration of ketamine (0.25 mg/kg) equated to a lower rate of hallucination and sedation score compared with 0.5 mg/kg ketamine. The nystagmus status was similar in both ketamine groups.

Associate Editor's Comments:

Associate Editor 1:

Dear Editor in Chief

With greetings, according to the reviewers' comments the submitted manuscript needs to be revised : Thank you for your comment we did it

Associate Editor 2:

Dear author

*Consider and add below three references:*Thank you for your comment we did it as references No. 1 and 18

Imani F, Varrassi G. Ketamine as Adjuvant for Acute Pain Management, Anesth Pain Med. 2019;9(6):e100178.

Imani F, Rahimzadeh P, Faiz H, Abdullahzadeh-Baghaei A. An Evaluation of the Adding Magnesium Sulfate to Ropivacaine on Ultrasound-Guided Transverse Abdominis Plane

Block After Abdominal Hysterectomy, Anesth Pain Med. 2018;8(4):e74124.

Imani F, Faiz HR, M Sedaghat, Hajiashrafi M. Effects of Adding Ketamine to Fentanyl Plus Acetaminophen on Postoperative Pain by Patient Controlled Analgesia in Abdominal Surgery. Anesth Pain Med. 2014;4(1):e12162.

Regards

OPEN PEER REVIEW

Revision (1)

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

REFEREE: Reviewer | **Revision** (1) 18 Aug 2020

Dear AE,
I read revised manuscript ID#106220 and the author could correct the majority of requested items.
Sincerely

REFEREE: Associate Editor | **Revision** (1) 18 Aug 2020

Dear EIC,
Based on reviewers' comments this manuscript can be considered for publishing at Anesth Pain Med.
Regards

REFEREE: EIC | **Revision** (1) 18 Aug 2020

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