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 "**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:

Peer Review

Anesthesiology and Pain Medicine
Article DOI: https://doi.org/10.5812/aapm-113345
Published in: Anesthesiology and Pain Medicine: 12(4) ; e113345

Peer Review Report for "Comparison of the Effect of Heparinized Normal Saline Solution Versus Saline Solutions in Arterial and Central Venous Catheters on Complete Blood Count After Cardiac Surgery"

Author(s): Mohsen Ziyaeifard, Rasool Ferasat-Kish, Rasoul Azarfarin, Nahid Agdaii, Hasan Nejatisini, Changiz Azadi Ahmadabadi, Marziyeh Yousefi

Review Timeline:

Submit Date:	2 May 2021
Revised Date:	28 Feb 2022
Accepted Date:	2 Mar 2022

Revision (0)

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

REFEREE : Reviewer

7 Jun 2021

- The paper has some grammar mistakes, grammar editing is recommended. For example:
1. In the "background" part:
13th line: Change thrombopenia to thrombocytopenia
15th line: Correct sentence: to prevent occlusion of arterial and central venous catheters.

2. In the "Results" part:
3rd line: 'Mean' should be deleted and 'mean age' is correct.
7th line: Add 'catheter' after internal jugular and subclavian.
-Inclusion and exclusion criteria are not clearly expressed.
- Please add the RCT code.
- It is recommended to use the CONSORT flow diagram in the methods (study design) part.
Regard

REFEREE : Reviewer

13 Jun 2021

Dear AE
In my opinion, the paper has some shortcomings. Below I have provided numerous remarks on them:
Abstract:
It's better to delete "which can lead to ..... in veins" in line three.
Due to the contradictory time of conducting CBC in the text and abstract, please correct the exact time of the third CBC.
There is a need to correct the exact time of the third CBC time in the result.
There are contradictory issues in the discussion sections of the abstract and text. Please correct them.
Introduction:
The term " Thrombocytopenia" is common than thrombopenia. Please correct it.
The objection section is part of the Introduction section. It's better to write it inside the introduction section.
Method:
Ethics Committee approval and IRCT number should be mentioned in this part.
How did you write the sample size? Is it determined according to previous studies? Is it determined during the limited time? Is it determined by a special formula?
How did you use normal salin slotion and heparnized normal saline? Please mention it.
How many units of heparin per hour and the amount of heparin in each cc did you use? (1-3 cc per hour and 1-3 unit heparin per 1 cc?)
The inclusion and exclusion criteria should be written exactly.
Self-citation in the referencing is not academic writing in article writing.
The time of the third CBC should be the same in all parts of the article. Please correct them.
There is not any figure labeled as "Figure 1" in the article. Please add it.
Result:
Table 1, Table 2, and Figure 1 did not exist. Please add them.
Discussion:
The discussion section was written in general terms; no mention was made to details. The authors should write the discussion section in a way that goes beyond generalization and descriptiveness. They should compare the results of the present study with previous articles.

Conclusion:
Please match the conclusion section with the abstract. There is a contradiction.
This manuscript needs a major revision, and the authors have to pay attention to the referees' comments to correct the mistakes of the manuscript.
Best regards

REFEREE : Reviewer

23 Jun 2021

Advantage:
Occlusion of arterial or central venous catheters is one of the most complications, Thus choosing a better solutions to prevent catheter occlusion is very important.
Weaknesses:
1 - In title:
Saline solutions are not equivalent to normal saline, so recommended change " Heparinized and saline solutions" with "normal saline and Heparinized normal saline".
2 – In Abstract:
In 3rd line of Background part : thrombocytopenia dont lead to the formation of blood clots but release of procoagulant platelet microparticles lead to the formation of blood clots.
In 13th line of Background part : Chang thrombopenia to thrombocytopenia.
3 – In Methods:
a) There is no RCT code.
b) Patients' inclusion and exclusion criteria are not clear.
c) Evaluation days are not clear: In 13th line of Study Design part " The evaluation was performed before the operation, the first day after the surgery and the last day of hospitalization in the intensive care unit" but in the abstract of article it was written that " before surgery, the first and second days after surgery".
4 – In Results:
6th line : Add "catheter" after internal jugular.
7th line: Add "catheter" after subclavian.
Regard

REFEREE : Associate Editor

24 Jun 2021

Dear Editor in Chief
According to respected reviewers comments, after replying to all questions, this manuscript can be accepted as Brief report.
Also, recommend to author for adding below four references:
Kasem Rashwan S A, Bassiouny A A E, Badawy A A, Mohammed A R. The Relation Between Common Carotid Artery Diameter and Central Venous Pressure for Assessment of Intravascular Fluid Status after Major Surgeries; an Observational Study, Anesth Pain Med. 2020; 10(4):e105138.
Valizad Hassanloei M, Mahoori A, Karami N, Sina V. The Relationship between Arterial

and Central Venous Blood Gases Values in Patients Undergoing Mechanical Ventilation after Cardiac Surgery. Anesth Pain Med. 2018;8(3):e74243.
Yousefshahi F, Boroumand M, Haryalchi K, Zebardast J, Ghajar A, et al. Normal Reference Interval of WBC Count After On - Pump Coronary Artery Bypass Graft; When Values Could Be Misleading. Anesth Pain Med. 2018;8(3):e69322.
Aghdaii N, Ferasatkish R, Mohammadzadeh Jouryabi A, Hamidi S H. Significance of Preoperative Total Lymphocyte Count as a Prognostic Criterion in Adult Cardiac Surgery. Anesth Pain Med. 2014;4(3):e20331.
Final decision: Major revision.
Kind regards
AE

REFEREE : EIC

28 Jun 2021

Major Revision

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.

Response to Reviewers

Dear Dr. Farnad Imani

Editor-in-Chief,

Anesthesiology and Pain Medicine

March 27, 2021

Thank you for your letter regarding my manuscript entitled “Comparison of the effect of Heparinized Normal Saline Solution versus Normal Saline Solutions of arterial and central venous catheters on Complete Blood Count (CBC) after cardiac surgery”, enclosing the reviewers’ comments. I very much appreciate the time and effort you’ve put into your comments. Your advice was most helpful. We have revised our paper accordingly and feel that your comments helped clarify and improve our paper. Our responses are given in a point-by-point manner below. Please find our response (in blue) to reviewer’s specific comments (in black) below. Changes to the manuscript are shown in underline/yellow/bold.

Reviewer 1:

Dear AE

In my opinion, the paper has some shortcomings. Below I have provided numerous remarks on them:

Abstract:

It's better to delete "which can lead to ….. in veins" in line three.

- ❖ It was deleted

Due to the contradictory time of conducting CBC in the text and abstract, please correct the exact time of the third CBC. There is a need to correct the exact time of the third CBC time in the result. There are contradictory issues in the discussion sections of the abstract and text. Please correct them.

- ❖ It was corrected

Introduction:

The term " Thrombocytopenia" is common than thrombopenia. Please correct it.

- It was corrected

The objection section is part of the Introduction section. It's better to write it inside the introduction section.

- It was done as suggested.

Method:

Ethics Committee approval and IRCT number should be mentioned in this part.

- It was done as suggested.

How did you write the sample size? Is it determined according to previous studies? Is it determined during the limited time? Is it determined by a special formula?

- In this study, 100 patients (Based on previous studies) after fulfilling the inclusion (65>age>18, undergoing CABG surgery, EF>40%) and exclusion (dissatisfaction) criteria the study. with an arterial catheter and central venous pressure monitoring catheter were studied. Patients' inclusion and exclusion criteria were the same as our previous study.

How did you use normal salin slotion and heparnized normal saline? Please mention it.

- A group received heparinized catheters and B group received Normal saline solutions catheters.

How many units of heparin per hour and the amount of heparin in each cc did you use? (1-3 cc per hour and 1-3 unit heparin per 1 cc?)

- A group received heparinized catheters (1unit/cc normal saline and continuous infusion rates of 3 ml/h under pressure of 300 mmHg)

The inclusion and exclusion criteria should be written exactly.

- The inclusion (65>age>18, undergoing CABG surgery, EF>40%) and exclusion (dissatisfaction) criteria the study.

Self-citation in the referencing is not academic writing in article writing.

- It was corrected

The time of the third CBC should be the same in all parts of the article. Please correct them.

- It was corrected

There is not any figure labeled as "Figure 1" in the article. Please add it.

- It was done as suggested.

Result:

Table 1, Table 2, and Figure 1 did not exist. Please add them.

- It was done as suggested.

Discussion:

The discussion section was written in general terms; no mention was made to details. The authors should write the discussion section in a way that goes beyond generalization and descriptiveness. They should compare the results of the present study with previous articles.

- It was done as suggested.

Conclusion:

Please match the conclusion section with the abstract. There is a contradiction.

- It was done as suggested. It was corrected.

This manuscript needs a major revision, and the authors have to pay attention to the referees' comments to correct the mistakes of the manuscript.

- It was done as suggested. It was corrected.

Best regards

Reviewer 2:

- The paper has some grammar mistakes, grammar editing is recommended. For example:

1. In the "background" part:

13th line: Change thrombopenia to thrombocytopenia

It was corrected.

15th line: Correct sentence: to prevent occlusion of arterial and central venous catheters.

It was corrected.

2. In the "Results" part:

3rd line: 'Mean' should be deleted and 'mean age' is correct.

It was corrected.

7th line: Add 'catheter' after internal jugular and subclavian.

It was done as suggested.

-Inclusion and exclusion criteria are not clearly expressed.

- The inclusion (65>age>18, undergoing CABG surgery, EF>40%) and exclusion (dissatisfaction) criteria the study.

- Please add the RCT code.

- It was added

- It is recommended to use the CONSORT flow diagram in the methods (study design) part.

It was done as suggested.

Regard

Reviewer 3:

Advantage:

Occlusion of arterial or central venous catheters is one of the most complications, Thus choosing a better solutions to prevent catheter occlusion is very important.

Weaknesses:

1 - In title:

Saline solutions are not equivalent to normal saline, so recommended change " Heparinized and saline solutions" with "normal saline and Heparinized normal saline".

- ❖ It was corrected as suggested.

2 – In Abstract:

In 3rd line of Background part : thrombocytopenia dont lead to the formation of blood clots but release of procoagulant platelet microparticles lead to the formation of blood clots.

It was done as suggested.

In 13th line of Background part : Chang thrombopenia to thrombocytopenia.

It was done as suggested.

3 – In Methods:

a) There is no RCT code.

- ❖ It was added

b) Patients' inclusion and exclusion criteria are not clear.

- ❖ The inclusion (65>age>18, undergoing CABG surgery, EF>40%) and exclusion (dissatisfaction) criteria the study.

c) Evaluation days are not clear: In 13th line of Study Design part " The evaluation was performed before the operation, the first day after the surgery and the last day of hospitalization in the intensive care unit" but in the abstract of article it was written that " before surgery, the first and second days after surgery".

- ❖ It was corrected as suggested.

4 – In Results:

6th line : Add "catheter" after internal jugular.

- It was added

7th line: Add "catheter" after subclavian.

- It was added

We hope the revised version is now suitable for publication and look forward to hearing in due course. Thank you once again for your time and interest.

Best Regards,

Marziyeh Yousefi
firoozeh_yousefi@yahoo.com
Rajaie Cardiovascular Medical and Research Center, Iran University of Medical Sciences, Tehran, Iran

OPEN PEER REVIEW

Revision (1)

REFEREE : Associate Editor

4 Oct 2021

Dear Editorial
Anesth Pain Med
Based on reviewers' comments, this revised format need some corrections before publishing. Also, recommend to change the article style to Brief Report.
Final decision: Minor revision
Regards
AE

REFEREE : EIC

4 Oct 2021

Minor Revision

OPEN PEER REVIEW

Revision (2)

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.

Response to Reviewers

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Editor-in-Chief,

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March 27, 2021

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Reviewer 1:

Dear Editor in Chief

This manuscript can be accepted as Brief report.

- Manuscript changed based on Template of Brief Report.

Also, recommend to author for adding below four references:

Kasem Rashwan SA, Bassiouny AAE, Badawy AA, Mohammed AR. The Relation Between Common Carotid Artery Diameter and Central Venous Pressure for Assessment of Intravascular Fluid Status after Major Surgeries; an Observational Study, Anesth Pain Med. 2020;10(4):e105138.

Valizad Hassanloei M, Mahoori A, Karami N, Sina V. The Relationship between Arterial and Central Venous Blood Gases Values in Patients Undergoing Mechanical Ventilation after Cardiac Surgery. Anesth Pain Med. 2018;8(3):e74243.

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Aghdaii N, Ferasatkish R, Mohammadzadeh Jouryabi A, Hamidi S H. Significance of Preoperative Total Lymphocyte Count as a Prognostic Criterion in Adult Cardiac Surgery. Anesth Pain Med. 2014;4(3):e20331.

- All recommend references added to manuscript.

We hope the revised version is now suitable for publication and look forward to hearing in due course. Thank you once again for your time and interest.

Best Regards,

OPEN PEER REVIEW

Revision (2)

REFEREE : EIC

21 Jan 2022

After doing necessary recommendation, it can be change to research article

OPEN PEER REVIEW

Revision (3)

Reply to Reviewers

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Reviewer 1:

Dear Editor in Chief

I read this revised manuscript, and author tried to correct some of the requested items. Suggest to up-date the references section.

Add New Six References:

Bilehjani E, Nader N, Farzin H, Haghighate Azari M, Fakhari S. The Evaluation of Factors Affecting Hemodynamic Variability in Mechanically-Ventilated Patients After Cardiac Surgery. Anesth Pain Med. 2020;10(4):e101832.

Hadipourzadeh F, Mousavi S, Heydarpur A, Sadeghi A, Ferasat-Kish R. Evaluation of the Adding Paracetamol to Dexmedetomidine in Pain Management After Adult Cardiac Surgery. Anesth Pain Med. 2021;11(3):e110274.

Javaherforoosh Zadeh F, Janatmakan F, Soltanzadeh M, Zamankhani M. Investigating the Effect of Fibrinogen Injection on Bleeding in Coronary Artery Bypass Surgery: A Clinical Trial. Anesth Pain Med. 2019;9(4):e92165.

Yousefshahi F, Samadi E, Paknejad O, Bastan Hagh E, Aminzadeh S. Effect of Hypoxemia in the Determination of Short-Term Prognosis of Coronary Artery Bypass Graft Patients: A Prospective Study. Anesth Pain Med. 2019;9(1):e81785.

Imantalab V, Sedighinejad A, Mohammadzadeh Jouryabi A, Biazar G, Kanani G, et al. Glycemic Control in Coronary Artery Bypass Graft Surgery: A Different Perspective. Anesth Pain Med. 2021;11(6):e120073.

Ghorbaninezhad K, Bakhsha F, Yousefi Z, Halakou S, Mehrbakhsh Z. Comparison Effect of Tranexamic Acid (TA) and Tranexamic Acid Combined with Vitamin C (TXC) on Drainage

Volume and Atrial Fibrillation Arrhythmia in Patients Undergoing Cardiac Bypass Surgery: Randomized Clinical Trial. Anesth Pain Med. 2019;9(5):e96096.

Delete below two:

4. Valizad Hassanloei M, Mahoori A, Karami N, Sina V. The Relationship between Arterial and Central Venous Blood Gases Values in Patients Undergoing Mechanical Ventilation after Cardiac Surgery. Anesth Pain Med. 2018;8(3):e74243.
16. Yousefshahi F, Boroumand M, Haryalchi K, Zebardast J, Ghajar A, Bastan Hagh E. Normal Reference Interval of WBC Count After On - Pump Coronary Artery Bypass Graft; When Values Could Be Misleading. Anesth Pain Med. 2018;8(3):e69322.

Can be or NOT delete below:

17. Aghdaii N, Ferasatkish R, Mohammadzadeh Jouryabi A, Hamidi SH. Significance of preoperative total lymphocyte count as a prognostic criterion in adult cardiac surgery. Anesth Pain Med. 2014;4(3):e20331.

- We have changed references as suggested.

OPEN PEER REVIEW

Revision (3)

REFEREE : EIC

2 Mar 2022

Accept