OPEN PEER REVIEW

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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 "Investigating the Effect of Near Infra-Red Spectroscopy (NIRS) on Early Diagnosis of Cardiac Surgery-Associated Acute Kidney Injury"

Author(s): Fatemeh Javaherforooshzadeh, Hojatolah Bhandori, Sara Jarirahmadi, Nima Bakhtiari

Review Timeline:

Submit Date: 3 Oct 2020
Revised Date: 15 Nov 2020
Accepted Date: 17 Nov 2020

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 | **Revision** (0) — 14 Oct 2020

Dear AE,
There are some comments which should be addressed by the author:
- The sample size is as small as mentioned in the limitations and it might be better to do the work over a longer period of time.
- The format of the article matched the format of the journal. The importance of the subject is well described in the introduction. The graphs and tables were sufficient and illustrative.
- The results were obtained by appropriate statistical methods. The discussion section must be more detailed.
Thanks.

REFEREE: Reviewer | **Revision** (0) — 18 Oct 2020

Dear AE,
There are some comments which should be addressed by the author:
- In the method, the author does not clearly explain how they reached the sample size.

- In the results section, according to the title, it is not complete and the rate of reduction in K o2sat from baseline is not explained also, how it relates to changes in the KDIGO criteria is not mentioned, in this study , in the results section, the descriptions do not match the title of the article. the writing is poor and in many parts of the manuscript, it is not clear what the author intended to say.
- There are some typing and grammatical errors so full English edit with an expert is needed.
Thanks.

REFEREE: Reviewer | **Revision** (0) 18 Oct 2020

Dear AE,
It seems this study is an observational one, but the authors tried to demonstrate the CONSORT diagram!, Please clearly define the study design.
- In the Result section, they stated "We found a significant association between Euro SCOREII (P=0.036), LVEF<50%, CPB time(P<0.001), Cross clamping time (P=0.036), median MAP during CPB(P=0.042), peak serum lactate (P=0.049), and valvular surgery (P=0.017) with CSA-AKI event." and except in T3 time your KSO2 values not different between the two CSA_AKI and non CSA_AKI groups! thus I do not agree with you that Kidney NIRS is predictive of AKI (Except T3). They should perform multivariate analysis to prove that NIRS is "Independently" predict AKI.
- Please correct the conclusion exactly based on the results. We can not accept routine use of NIRS in cardiac surgery patients according to this work findings.
- Complete English edit is needed.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 18 Oct 2020

Dear EIC,
According to the reviewers' comments, the manuscript needs major revision.
Sincerely yours

REFEREE: EIC | **Revision** (0) 18 Oct 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.

Dear editor

Thanks for review our manuscript. We corrected all the raised comments and marked the correction by yellow color to simplify the reviewing process, I appreciate your reviewers in advance:

Reviewer 1:

- The sample size is as small as mentioned in the limitations and it might be better to do the work over a longer period of time.
- The format of the article matched the format of the journal. The importance of the subject is well described in the introduction. The graphs and tables were sufficient and illustrative.
The results were obtained by appropriate statistical methods. The discussion section must be more detail.

The limitations of study were changed to: " The major limitation of this study was a need of larger sample and longer period of observation in this study(cohort study) to omitted biases."

Finally we add 1 paragraph for Discuss more in Discussion " Although pervious study showed important application of NIRS….."

Reviewer 2:

-In the method, the author does not clearly explain how they reached the sample size

Samples sized were mentioned in revised version
- In the results section, according to the title, it is not complete and the rate of reduction in K o2sat from baseline is not explained also, how it relates to changes in the KDIGO criteria is not mentioned, in this study , in the results section, the descriptions do not match the title of the article.

We add sentences in focusing reduction rate of KSO_2. The ROC curve analysis and accuracy and precision were based on KIDGO criteria as gold standard of diagnosis.

the writing is poor and in many parts of the manuscript it is not clear what the author intended to say. There are some typing and grammatical errors so full English edit with an expert is needed

We edit last version grammatically.

Reviewer 3:

It seems your study is an observational one, but you tried to demontrate CONSORT diagram, Please clearly define your study design.

*The consort diagram sometimes could be used in systemat*ic review and cohort study and there is not any limitation in present of this diagram.

In Result section you stated "We found a significant association between Euro SCOREII(P=0.036) ,LVEF<50% ,CPB time(P<0.001), Cross clamping time(P=0.036), median MAP during CPB(P=0.042)

,peak serum lactate(P=0.049), and valvular surgery (P=0.017)with CSA-AKI event." and except in T3 time your KSO2 values not different between the two CSA_AKI and non CSA_AKI groups! thus I am not agree with you that Kidney NIRS is predictive of AKI (Except T3).

Dear reviewer our result confirm your opinion although some researcher such as Dr. Ortega believed that NIRS have predictive value CSA-AKI Diagnosis generally.

You should perform multivariate analysis to prove that NIRS is "Independently" predict AKI.

We mentioned your opinion in limitation part of this manuscript.

Please correct your conclusion exactly based on your results. We can not accept routine use of NIRS in cardiac surgery patients according of this work findings.

We correct conclusion part :" Kidney saturation monitoring may be considered as one of monitoring in cardiac surgery"

- Complete English edit is needed.

Were corrected

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Revision (1)

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

REFEREE: Associate Editor | **Revision** (1) 1 Nov 2020

Dear EIC,
The authors answered almost all requested items and the manuscript could be accepted after removing the word "routine" from the conclusion section of the Abstract.
Sincerely

REFEREE: Associate Editor | **Revision** (1) 12 Nov 2020

Dear EIC,
I read with interest this revised manuscript. The author could reply to the majority of requested items, but before publishing pay attention and consider below two references:
- Shahbazi S, Alishahi P, Asadpour E. Evaluation of the Effect of Aminophylline in Reducing the Incidence of Acute Kidney Injury After Cardiac Surgery, Anesth Pain Med. 2017;7(4):e21740.
- 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.
Final decision: Minor revision
Sincerely

REFEREE: EIC | **Revision** (1) 12 Nov 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 (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.

Dear editor

Thanks for review our manuscript. We corrected all the raised comments and marked the correction by yellow color to simplify the reviewing process, I appreciate your reviewers in advance:

Reviewer 1:

The authors answered to almost all requested items and the manuscript could be accepted after removing the word "routine" from conclusion section of Abstract.

We removed the word "routine" from conclusion section of Abstract

Reviewer 2
I read with interest this revised manuscript. Author could reply the majority of requested items, but before publishing pay attention and consider below two references

Shahbazi S, Alishahi P, Asadpour E. Evaluation of the Effect of Aminophylline in Reducing the Incidence of Acute Kidney Injury After Cardiac Surgery, Anesth Pain Med. 2017;7(4):e21740.
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.

We considered "Shahbazi S, Alishahi P, Asadpour E. Evaluation of the Effect of Aminophylline in Reducing the Incidence of Acute Kidney Injury After Cardiac Surgery, Anesth Pain Med. 2017;7(4):e21740". reference 2

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) — 17 Nov 2020

Dear AE,
The revised ID#109863 was corrected by author, and now it is acceptable.
Best

REFEREE: Associate Editor | **Revision** (2) — 17 Nov 2020

Dear EIC,
This research article is accepted for publishing at Anesth Pain Med.
Kind regards

REFEREE: EIC | **Revision** (2) — 17 Nov 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.