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

Archives of Neuroscience
Article DOI: 10.5812/ans.99302
Published in: Archives of Neuroscience: 7(2); e99302

Peer Review Report for "Determination of the Predictive Value of Serum Bilirubin in Patients with Ischemic Stroke: A Systematic Review"

Author(s): Morteza Ghojazadeh, Elnaz Sagheb Asl, Nafiseh Vahed, Rassul Hassanpour, Sarvin Sanaie, Ata Mahmoodpoor, Mohammad-Salar Hosseini, Hassan Soleimanpour

Review Timeline:

Submit Date: 2 Nov 2019
Revised Date: 4 Mar 2020
Accepted Date: 11 Mar 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) — 16 Dec 2019

Dear AE,
I would like to thank the authors for their time reviewing the articles on the topic and putting together this systematic review.
Predictors of outcome of ischemic stroke has been widely studied , There are much more established outcome predictors when compared to Bilirubin level in the serum. If any , the bilirubin level might have very weak correlation with the outcome of ischemic stroke and this is also very controversial as authors pointed out. I do not see any significant practical value of this systematic review to the stroke specialist such as myself.
Thanks.

REFEREE: Reviewer | **Revision** (0) — 1 Jan 2020

Dear AE,
The authors presented a systematic review of the correlation of serum bilirubin and ischemic stroke. They followed PRISMA and selected 13 studies. There was no level one evidence such as RCT and no analysis was performed (not data-merging or meta-analysis). The study detected an association between the bilirubin level and the severity of ischemic

stroke. The paper is well written, however the following considerations should be mentioned:
- CONTEXT
The paragraph is totally unrelated and the 2nd should be modified.
It should be summarized related to the correlation of stroke and bilirubin; everyone knows the impact of stroke.
- INCLUSION
The study is about the correlation between bilirubin and ischemic stroke. However, intracranial hemorrhage is included! It should be exclusion criteria.
- SEARCH
In systematic review, RCTs and level one evidence should be considered; otherwise the level of recommendation would not be valuable. Two RCTs and one meta-analysis are present in literature, two of which were mentioned in discussion.
What were the criteria for quality assessment? There are specific criteria regarding each type of study, such as 11 criteria for RCTs.
There should be exclusion criteria considering the type of study (e.g. case report or series less than 10 patients), number of included patients, language, and age of cases.
Level of evidence for case-control studies should be mentioned in result.
- RESULT
Without RCTs, systematic Review would be inconclusive and more qualified studies should be recommended.
At least the level of evidence should be described.
The detail of studies is not well presented.
- DISCUSSION
Authors should mainly discuss the value and findings of their own study instead of focusing on various papers, which is disorganized and difficult to understand.
- Limitations should be discussed.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 8 Jan 2020

Dear EIC
The reviewer(s) have recommended publication, but also suggest some major revisions to the manuscript. Therefore, I invite the author to respond to the reviewer(s)' comments and revise his manuscript.
Kind regards,

REFEREE: EIC | **Revision** (0) 8 Jan 2020

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs major 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.

Reviewer 1:

The authors presented a systematic review about the correlation of serum bilirubin and ischemic stroke. They followed PRISMA and selected 13 studies. There was no level one evidence such as RCT and no analysis was performed (not data-merging or meta-analysis). The study detected an association between the bilirubin level and the severity of ischemic stroke. The paper is well written, however the following considerations should be mentioned:

-CONTEXT;

The paragraph is totally unrelated and the 2nd should be modified.

It should be summarized related to the correlation of stroke and bilirubin; everyone knows the impact of stroke.

The paragraph has been summarized related to the correlation of stroke and bilirubin.

-INCLUSION

Study is about correlation of bilirubin and ischemic stroke. However, intracranial hemorrhage is included! It should be exclusion criteria.

Your comment is fulfilled and intracranial hemorrhage is considered as exclusion criteria.

-SEARCH

In systematic review, RCTs and level one evidence should be considered; otherwise the level of recommendation would not be valuable. Two RCTs and one meta-analysis are present in literature, two of which were mentioned in discussion.

The mentioned RCTs did not meet inclusion criteria considering the main objective of the study. So they are only presented in discussion part.

What were the criteria for quality assessment? There are specific criteria regarding each type of study, such as 11 criteria for RCTs.

Quality assessment was performed for two types of study using JBI critical appraisal checklist and included in the manuscript.

There should be exclusion criteria considering type of study (e.g. case report or series less than 10 patients), number of included patients, language and age of cases.

Exclusion criteria has been presented in extraction table.

Level of evidence for case-control studies should be mentioned in result.

Level of evidence is mentioned in result.

-RESULT

Without RCTs, systematic Review would be inconclusive and more qualified studies should be recommended.

At least the level of evidence should be described.

Considering that the selected studies were case *control the level of evidence was as for these studies* explanation is included in the result section.

The detail of studies is not well presented.

It is presented in the extraction table

-DISCUSSION

Authors should mainly discuss the value and findings of their own study instead of focusing on various papers, which is disorganized and difficult to understand.

-Limitations should be discussed.

One of the limitations of the study is the lack of interventional studies. Most studies did not investigate the association between bilirubin and ischemic stroke

Reviewer 2:

I would like to thank the authors for their time reviewing the articles on the topic and putting together this systematic review.

Predictors of outcome of ischemic stroke has been widely studied, there are much more established outcome predictors when compared to Bilirubin level in the serum. If any, the bilirubin level might have very weak correlation with the outcome of ischemic stroke and this is also very controversial as authors pointed out. I do not see any significant practical value of this systematic review to the stroke specialist such as myself.

The clinical significance of this study is that increased levels of bilirubin is associated with the severity of stroke and ischemic area which in turn leads to an increased mortality rate in these patients.

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) 11 Mar 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

REFEREE: Associate Editor | **Revision** (1) 11 Mar 2020

Dear EIC
Based on the authors' answers to the reviewers' comments, the reviewer(s) have recommended publication.
Kind regards.

REFEREE: EIC | **Revision** (1) 11 Mar 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.