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

International Journal of Endocrinology and Metabolism
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Peer Review Report for "Parvovirus B19 Infection Is Associated with Autoimmune Thyroid Disease in Adults"

Author(s): Zahra Heidari, Maede Jami

Review Timeline:

Submit Date: 15 May 2021
Revised Date: 28 Aug 2021
Accepted Date: 29 Aug 2021

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)

19 Jun 2021

Dear AE,
Major Comments:
1. It is not clear how was control group was selected; from the general population? Hospital or clinic individuals without thyroid disease? Or …
What method was used to have a similar female to male ratio in patients and control group?
2. Non-TPOAb patients in both Hashimato and Graves' patients were only 2.2 and 6.5% positive for B-19 infection, while the prevalence of B-19 infection was 47.1% in the control group. What is the explanation for this difference? Could the author provide the percent of B-19 positivity in the control group in both TPOAb positive and negative subgroups?
Other Comments:
3. Please use TPOAb and TgAb instead of anti-TPO and anti-Tg throughout the manuscript.
4. Lines 47-59: Not directly related to the aims of the present study and should be deleted.
5. Line 61: Please provide references
6. Line 87: What do you mean by recently? How many weeks after the diagnosis? How did you suggest the length of having autoimmune thyroid disease?
7. Line 90: Delete capital letters.
8. Lines 91-94: Please define laboratory indices of each disease separately.
9. Line 98: Define in detail the method(s) of selection of control groups (see item 1).

10. Line 111: Please provide CV of lab tests.
11. Line 122: You have employed parametric statistical methods; are you sure all variables had normal distribution?
12. Line 133: Please provide the percent of B-19 infection for TPOAb positive and negative control subgroups, separately.
13. Lines 233-225: Author(s) should omit the last sentence of this paragraph.
14. Line 221 and Table 1: Since you have measured serum IgG antibodies, you should replace serum IgG for “B12Ab” in Table 1 and throughout the text.
15. Please omit decimals for all values above 99 in the tables.
16. Table 2: Hudge difference in percentages of positive B-19 between the control group and TPOAb negative (both Hashimoto and GD) is a questionable finding (see item 2). Authors should disuses reason(s) for this difference and offer an evidence-based hypothesis.
17. Figure 2: This should be deleted, as these findings have been related in the text and tables.
Thanks.

Atieh Amouzegar: Associate Editor | **Revision** (0) 4 Jul 2021

Dear EIC,
The authors should consider the major points that are critical for this paper and should be answered by the authors.
Thanks.

REFEREE: EIC | **Revision** (0) 4 Jul 2021

Dear Authors,
The reviewers have requested very substantial changes in several part of the manuscript that guarantee the need to an extensive revision.
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.

Revised manuscript submission: **Manuscript ID: 115592**

Entitled "Parvovirus B19 infection is associated with autoimmune thyroid disease in adults."

Dear Editor-in-Chief

Thank you very much for your email dated Jul 4 2021, regarding the preliminary evaluation of our manuscript and the opportunity to revise and resubmit the paper. We have taken each critique and comment very seriously, and now submit a revised version in response to the reviewers' comments.

As instructed, we hereby submit a point-by-point italicized response to the reviewers' comments and a revised paper with changes highlighted.

Looking forward to hearing from you at your earliest convenience,

Sincerely,

Corresponding Author

Reviewer 1:

Comment:

"1. It is not clear how was control group selected; from general population? Hospital or clinic individuals without thyroid disease? Or …
What method was used to have similar female to male ratio in patients and control group?"

Response:

We appreciate very much the evaluation of Reviewer 1.

Agreed and corrected (page 4. Line 83-88).

Euthyroid healthy individuals without thyroid disease and any known acute or chronic illness were chosen as the control group from general population after applying the inclusion and exclusion criteria. The control group was matched according to age and gender with the case group. The geographical origin and socio-economic status of this control group was similar to that of the case group.

Comment:

"2. Non-TPOAb patients in both Hashimato and Graves' patients were only 2.2 and 6.5% positive for B-19 infection, while the provelance of B-19 infection was 47.1% in the control group. What is the explanation for this difference? Could author provide percent of B-19 positivity in control group in both TPOAb positive and negative subgroups?"

Response:

This information is given in **Table 2**. B-19 positivity in **control group** (n=480) in both TPOAb positive and negative subgroups:

Positive TPO-Ab (n=56)		Negative TPO-Ab (n=424)	
Positive B19-Ab	Negative B19-Ab	Positive B19-Ab	Negative B19-Ab
20	36	206	218

Comment:

"*3. Please use TPOAb and TgAb instead of anti-TPO and anti-Tg throughout manuscript."*

Response:

Agreed and corrected.

Comment:

"*4. Lines 47-59: Not directly related to the aims of present study and should be deleted."*

Response:

Agreed and corrected.

Comment:

"5. Line 61: Please provide references"

Response:

Agreed and corrected.

Comment:

"6. Line 87: What do you mean by recently? How many weeks after diagnosis? How did you suggest the length of having autoimmune thyroid disease?"

Response:

This study was performed on newly diagnosed patients who were diagnosed at a recent visit and have not yet been treated.

Comment:

"*7.Line 90: Delete capital letters."*

Response:

Agreed and corrected.

Comment:

"8. Lines 91-94: Please define laboratory indices of each disease separately."

Response:

Agreed and corrected. (page 4, line 75-80).

Comment:

"9. Line 98: Define in detail method(s) of selection of control groups (see item 1)."

Response:

Agreed and corrected (page 4, line 83-86).

Comment:

"10. Line 111: Please provide CV of lab tests."

Response:

Agreed and corrected (page 5,line 95-104).

Comment:

"*11. Line 122: You have employed parametric statistical methods; are you sure all variables had normal distribution?"*

Response:

Agreed and corrected (page 5,line 112-118).

Comment:

"*12. Line 133: Please provide percent of B-19 infection for TPOAb positive and negative control subgroups, separately.*"

Response:

This information is given in Table 2. (Page 11; Table 2).

Comment:

"*13. Lines 233-225: Author(s) should omit last sentenced of this paragraph."*

Response:

Agreed and corrected.

Comment:

"14. Line 221 and Table 1: Since you have measure serum IgG antibodies, you should replace serum IgG for "B12Ab" in Table 1 and throughout the text."

Response:

Agreed and corrected.

Comment:

"15. Please omit decimals for all values above 99 in the tables."

Response:

Agreed and corrected.

Comment:

"16. Table 2: Hudge difference in percentages of positive B-19 between control group and TPOAb negative (both Hashimoto and GD) is a questionable finding (see item 2). Authors should disuses reason(s) for this difference and offer an evidence-based hypothesis."

Response:

Apart from the fact that the total number of subjects with negative TPOAb in the Hashimoto group is 43 and in the Graves group is 46, which makes it difficult to compare them with the 480 control group, we have no other justification for this finding in this study.

Comment:

17. Figure 2: Should be deleted, as these findings have been related in the text and tables.

Response:

Agreed and corrected. Figure 2 deleted.

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) 31 Jul 2021

Dear AE,
The author has responded to all comments and has revised the manuscript accordingly. The author is recommended to include comment No. 16 and its response as a limitation in the end of the Discussion.
Comment:
"16. Table 2: Hudge difference in percentages of positive B-19 between the control group and TPOAb negative (both Hashimoto and GD) is a questionable finding (see item 2). Authors should disuses reason(s) for this difference and offer an evidence-based hypothesis."
Response:
Apart from the fact that the total number of subjects with negative TPOAb in the Hashimoto group is 43 and in the Graves group is 46, which makes it difficult to compare them with the 480 control group, we have no other justification for this finding in this study.
Thanks.

Atieh Amouzegar: Associate Editor | **Revision** (1) 22 Aug 2021

Dear EIC,
The author has responded to all comments and has revised manuscript accordingly. The author is recommended to include comment No. 16 and its response as a limitation at the end of the Discussion.
Comment:
- "16. Table 2: Hudge difference in percentages of positive B-19 between the control group and TPOAb negative (both Hashimoto and GD) is a questionable finding (see item 2). Authors should disuses reason(s) for this difference and offer an evidence-based hypothesis."
Response:
Apart from the fact that the total number of subjects with negative TPOAb in the Hashimoto group is 43 and in the Graves group is 46, which makes it difficult to compare them with the 480 control group, we have no other justification for this finding in this study.
Thanks.

REFEREE: EIC | **Revision** (1) 22 Aug 2021

Dear Authors,

Although your article has been accepted by the associate editor, before sending you the "Acceptance email" the following has to be changed:

The reviewer has asked to include comment No. 16 and its response as a limitation in the end of the Discussion. Please do this at your earliest convenience as it is delaying the publication process for your article.

Awaiting your response,

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.

Revised manuscript submission: **Manuscript ID: 115592**

Entitled "Parvovirus B19 infection is associated with autoimmune thyroid disease in adults."

Dear Editor-in-Chief

Thank you very much for your email, regarding the evaluation of our manuscript and the opportunity to revise and resubmit the paper. We have taken each critique and comment very seriously, and now submit a revised version in response to the reviewers' comments.

As instructed, we hereby submit a point-by-point italicized response to the reviewers' comments and a revised paper with changes highlighted.

Looking forward to hearing from you at your earliest convenience,

Sincerely,

Reviewer 1:

Comment:

"1.Author has responded to all comments and has revised manuscript accordingly. Author is recommended to include comment No. 16 and its response as a limitation in the end of the Discussion."

Response:

Agreed and corrected (page 8. Line 217-223).

"The present study has several limitations. First, it is an observational study that cannot represent the cause-effect relationship between B19 infection and autoimmune thyroid disorders. Second, in this study, to confirm B19 infection, we used the measurement of serum IgG antibodies in the serum rather than methods, such as PCR or in situ hybridization for DNA and immunohistochemistry for capsid proteins in thyroid tissue. Furthermore, the obvious difference in percentages of positive B19 subjects between the control group and TPO-Ab negative patients in both the Hashimoto and Graves groups is a questionable finding. Apart from the fact that there was a limited total number of subjects with negative TPO-Ab in the Hashimoto group (43 subjects) and in the Graves group (46 subjects), which makes it difficult to compare them with the 480 participants in the control group, we have no other justification for this finding in this study. On the other hand, having an euthyroid control group, and relatively acceptable sample size are among the strengths of the current research".

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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: EIC | **Revision** (2) 29 Aug 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.