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://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Hepatitis Monthly
Article DOI: 10.5812/hepatmon-123438
Published in: Hepatitis Monthly: 22(1); e123438

Peer Review Report for "Comparing RT-qPCR and Hepatitis C Virus Antigen Detection Assay for Detecting Active Infection in Blood Donors in Fars Province, Iran"

Author(s): Leila Kasraian, Ali Farhadi, Gholamreza Rafiei Dehbidi, Mehdi Mirzakhani, Sedigheh Sharifzadeh, Sepide Namdari, Abbas Behzad-Behbahani

Review Timeline:

Submit Date: 26 Feb 2022
Revised Date: 11 Jun 2022
Accepted Date: 15 Jun 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 | **Revision** (0) — 10 Mar 2022

Dear associate editor
The following comments are applicable;
1- Title is too long, It is best to make sure that it is reduced, as much as possible.
2- The references need to be updated.
3- There are few spelling and grammatical mistakes in letter that must be fixed.

Taken into consideration the above issues, it is suggested that Authors would re-submit their paper after carrying out Major revision.

REFEREE: Associate Editor | **Revision** (0) — 9 Apr 2022

Manuscript ID 123438 entitled, “Comparing Antigen, Antibody, and Hepatitis C Virus Genome Detection Tests to Diagnose Active Viral Infection in Blood Donors” reports results of a comparative analysis on sensitivity, specificity, positive predictive value (PPV), and

negative predictive value (NPP) for the HCV core Ag and nucleic acid testing (RT-PCR) on 90 serum samples positive for HCV antibody from blood donors referred to Fars Blood Transfusion Organization. HCV genotypes were also determined by DNA sequencing. Results indicated above 95% sensitivity, specificity and diagnostic accuracy for HCVcAg method with 97.78% agreement between RT-qPCR and HCVcAg detection assay. Authors concluded perfect correlation between two assays.
Comments:

The manuscript needs to be completely and precisely revised to improve “scientific writing style and organization, methodology and data presentation as well as discussion” by considering all the detailed comments in the following:

- The title might be revised to precisely define the aim of study and/or the message (net finding) that is based on comparing two methods of RT-qPCR and HCVcAg detection assay while indicating/emphasizing the geographic location of the sample collection (i.e.: Iran/Fras province or whatever).

- The dates (i.e: from June 2018 to….) and the geographic location of the sample collection should be indicated clearly in both abstract and the “method section).

- The introduction should contain in a very summarized form the background information related to the “main aim of the study” that is what is reported in the world and in Iran regarding the “comparing two methods of RT-qPCR and HCVcAg detection” using more recent review articles published to date (around 30 review articles concerning reports on comparing two methods of RT-qPCR and HCVcAg detection assay are available). Some recent examples are:

• HCV core antigen plays an important role in the fight against HCV as an alternative to HCV-RNA detection. Wang Y, Jie W, Ling J, Yuanshuai H. J Clin Lab Anal. 2021 Jun;35(6):e23755. doi: 10.1002/jcla.23755.
• Role of hepatitis C virus core antigen assay in hepatitis C care in developing country. Kallala O, Kacem S, Fodha I, Pozzetto B, Abdelhalim T.Egypt Liver J. 2021;11(1):77. doi: 10.1186/s43066-021-00146-z.

- Method section should be exact for all provided information and methodology and should be accompanied with references (when needed). Accordingly, the dates (i.e: from June 2018 to….) and the geographic location of the sample collection should be indicated clearly. The procedures might be explained briefly in few words. The RT-PCR method should be explained or referred for the used protocols. Are new primers introduced (why?) Are already reported primers used (what is the reference?)…Please clarify.

- Each result should be accompanied by the related figure(s)/table(s) with professional figure legends. This is completely absent in the present submission and might result to rapid rejection of the manuscript. Please see similar published articles to adapt presentation of the results. Some examples are as following (the files of two example manuscript is also uploaded).

• Evaluation of Hepatitis C Virus Core Antigen Assay in a Resource-Limited Setting in Pakistan. Abid A, Uddin M, Muhammad T, Awan S, Applegate T, Dore GJ, Cloherty G, Hamid S.Diagnostics (Basel). 2021 Jul 28;11(8):1354. doi: 10.3390/diagnostics11081354.
• Prevalence and genotype distribution of hepatitis C virus within hemodialysis units in Thailand: role of HCV core antigen in the assessment of viremia. Chuaypen N, Khlaiphuengsin A, Prasoppokakorn T, Susantitaphong P, Prasithsirikul W, Avihingsanon A, Tangkijvanich P, Praditpornsilpa K.BMC Infect Dis. 2022 Jan 22;22(1):79. doi: 10.1186/s12879-022-07074-2.

- The discussion section should be started with a message paragraph. The next paragraphs should compare the obtained results of the present study with that of the others from Iran and the world to see what results are in accordance and what are different and why (i.e.: discuss the results). There are tenths of similar studies to compare these two HCV assays and their results should be compared with what is found in this study. The final paragraph should provide net concluding remarks. The discussion section in the submitted draft is just “back ground information and repetition of the findings”. Failure to provide a scientifically shaped discussion section will result to rejection of the manuscript. Some examples of prior similar studies in the world and Iran are as following:
• Evaluation of Hepatitis C Virus Core Antigen Assay in a Resource-Limited Setting in Pakistan. Abid A, Uddin M, Muhammad T, Awan S, Applegate T, Dore GJ, Cloherty G, Hamid S.Diagnostics (Basel). 2021 Jul 28;11(8):1354. doi: 10.3390/diagnostics11081354.
• Prevalence and genotype distribution of hepatitis C virus within hemodialysis units in Thailand: role of HCV core antigen in the assessment of viremia. Chuaypen N, Khlaiphuengsin A, Prasoppokakorn T, Susantitaphong P, Prasithsirikul W, Avihingsanon A, Tangkijvanich P, Praditpornsilpa K.BMC Infect Dis. 2022 Jan 22;22(1):79. doi: 10.1186/s12879-022-07074-2.
• Utility of hepatitis C virus core antigen testing for diagnosis and treatment monitoring in HCV infection: A study from India. Kumbhar N, Ramachandran K, Kumar G, Rao Pasupuleti SS, Sharma MK, Gupta E.Indian J Med Microbiol. 2021 Oct-Dec;39(4):462-466. doi: 10.1016/j.ijmmb.2021.07.002. Epub 2021 Jul 19.
• Detection of hepatitis C virus core antigen as an alternative method for diagnosis of hepatitis C virus infection in blood donors negative for hepatitis C virus antibody. Hassanin TM, Abdelraheem EM, Abdelhameed S, Abdelrazik M, Fouad YM.Eur J Gastroenterol Hepatol. 2020 Oct;32(10):1348-1351. doi: 10.1097/MEG.0000000000001647.
• Correlation analysis of hepatitis C virus core antigen and low viral loads: Can core antigen replace nucleic acid test? Feng B, Yang RF, Jiang HJ, Xie YD, Zhang HY, Jin Q, Cong X, Wei L.Clin Exp Med. 2020 Feb;20(1):131-141. doi: 10.1007/s10238-019-00588-1.
• Hepatitis C virus (HCV) Infection Rate among Seronegative Hemodialysis Patients Screened by Two Methods; HCV Core Antigen and Polymerase Chain Reaction, Maryam Moini 1, Mazyar Ziyaeyan, Shapoor Aghaei, Mohammad Mahdi Sagheb, Seyed Alireza Taghavi, Mahsa Moeini, Marzieh Jamalidoust, Laleh Hamidpour, Hepat Mon. 2013 May 30;13(6):e9147. doi: 10.5812/hepatmon.9147. eCollection 2013.

- References of the manuscript should be updated based on the up to date citations that might be used in the revised “Introduction and discussion” sections as detailed above.

Seyed Moayed Alavian: EIC | **Revision** (0) 10 Apr 2022

Dear Authors,

Please follow the peer-review comments and submit a revision.

Regards,
EIC

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-in-Chief,

Hepatitis Monthly

We are grateful to the editors and reviewers for their time and constructive comments on our manuscript. We have applied their comments and suggestions and wish to re-submit a revised version of the manuscript ID: 123438 for further consideration in the journal. Below are the answers to each specific point. Changes in the initial version of the manuscript are highlighted in the revised version.

Sepide Namdari has been added to the list of co-authors of the revised version of this manuscript. We have included her name because she spent a lot of time editing the manuscript scientifically and grammatically, reviewing all parts of it and analyzing the results.

I hope this will be enough to satisfy the reviewers and the journal's editor to publish the manuscript.

Yours sincerely,

Corresponding author

Responses to Reviewers
Reviewer # 1

Comment 1. Title is too long, It is best to make sure that it is reduced, as much as possible.
Response: Done
Comment 2. The references need to be updated.
Response: References were updated.
Comment 3. There are few spelling and grammatical mistakes in letter that must be fixed.
Response: As suggested by the reviewer, we have gone through the revised article and corrected minor typing mistakes and grammatical.

Associate Editor 1:

Comment: The title might be revised to precisely define the aim of study and/or the message (net finding) that is based on comparing two methods of RT-qPCR and HCVcAg detection assay while indicating/emphasizing the geographic location of the sample collection (i.e.: Iran/Fras province or whatever).

Response: Done
Comment: The dates (i.e: from June 2018 to….) and the geographic location of the sample collection should be indicated clearly in both abstract and the "method section).
Response: Done
Comment: The introduction should contain in a very summarized form the background information related to the "main aim of the study" that is what is reported in the world and in Iran regarding the "comparing two methods of RT-qPCR and HCVcAg detection" using more recent review articles published to date (around 30 review articles concerning reports on comparing two methods of RT-qPCR and HCVcAg detection assay are available). Some recent examples are:

• HCV core antigen plays an important role in the fight against HCV as an alternative to HCV-RNA detection. Wang Y, Jie W, Ling J, Yuanshuai H. J Clin Lab Anal. 2021 Jun;35(6):e23755. doi: 10.1002/jcla.23755.

• Role of hepatitis C virus core antigen assay in hepatitis C care in developing country. Kallala O, Kacem S, Fodha I, Pozzetto B, Abdelhalim T.Egypt Liver J. 2021;11(1):77. doi: 10.1186/s43066-021-00146-z.

Response: In the revised version of the manuscript, we have tried to include the studies recommended by the associate editor.

Comment: Method section should be exact for all provided information and methodology and should be accompanied with references (when needed). Accordingly, the dates (i.e: from June 2018 to….) and the geographic location of the sample collection should be indicated clearly. The procedures might be

explained briefly in few words. The RT-PCR method should be explained or referred for the used protocols. Are new primers introduced (why?) Are already reported primers used (what is the reference?) …Please clarify.

Response: We have tried to clarify all the methods used in the study, and we mentioned the methods recommended by the manufacturers of the kits.

Comment: Each result should be accompanied by the related figure(s)/table(s) with professional figure legends. This is completely absent in the present submission and might result to rapid rejection of the manuscript. Please see similar published articles to adapt presentation of the results. Some examples are as following (the files of two example manuscript is also uploaded).

• Evaluation of Hepatitis C Virus Core Antigen Assay in a Resource-Limited Setting in Pakistan. Abid A, Uddin M, Muhammad T, Awan S, Applegate T, Dore GJ, Cloherty G, Hamid S.Diagnostics (Basel). 2021 Jul 28;11(8):1354. doi: 10.3390/diagnostics11081354.

• Prevalence and genotype distribution of hepatitis C virus within hemodialysis units in Thailand: role of HCV core antigen in the assessment of viremia. Chuaypen N, Khlaiphuengsin A, Prasoppokakorn T, Susantitaphong P, Prasithsirikul W, Avihingsanon A, Tangkijvanich P, Praditpornsilpa K.BMC Infect Dis. 2022 Jan 22;22(1):79. doi: 10.1186/s12879-022-07074-2.

Response: As recommended, we included two tables to the present part of our results that are not explained in the text body in detail for the audience's convenience.

Comment: The discussion section should be started with a message paragraph. The next paragraphs should compare the obtained results of the present study with that of the others from Iran and the world to see what results are in accordance and what are different and why (i.e.: discuss the results). There are tenths of similar studies to compare these two HCV assays and their results should be compared with what is found in this study. The final paragraph should provide net concluding remarks. The discussion section in the submitted draft is just “back ground information and repetition of the findings”. Failure to provide a scientifically shaped discussion section will result to rejection of the manuscript. Some examples of prior similar studies in the world and Iran are as following:

• Evaluation of Hepatitis C Virus Core Antigen Assay in a Resource-Limited Setting in Pakistan. Abid A, Uddin M, Muhammad T, Awan S, Applegate T, Dore GJ, Cloherty G, Hamid S.Diagnostics (Basel). 2021 Jul 28;11(8):1354. doi: 10.3390/diagnostics11081354.

• Prevalence and genotype distribution of hepatitis C virus within hemodialysis units in Thailand: role of HCV core antigen in the assessment of viremia. Chuaypen N, Khlaiphuengsin A, Prasoppokakorn T, Susantitaphong P, Prasithsirikul W, Avihingsanon A, Tangkijvanich P, Praditpornsilpa K.BMC Infect Dis. 2022 Jan 22;22(1):79. doi: 10.1186/s12879-022-07074-2.

• Utility of hepatitis C virus core antigen testing for diagnosis and treatment monitoring in HCV infection: A study from India. Kumbhar N, Ramachandran K, Kumar G, Rao Pasupuleti SS, Sharma MK, Gupta E.Indian J Med Microbiol. 2021 Oct-Dec;39(4):462-466. doi: 10.1016/j.ijmmb.2021.07.002. Epub 2021 Jul 19.

• Detection of hepatitis C virus core antigen as an alternative method for diagnosis of hepatitis C virus infection in blood donors negative for hepatitis C virus antibody. Hassanin TM, Abdelraheem EM, Abdelhameed S, Abdelrazik M, Fouad YM.Eur J Gastroenterol Hepatol. 2020 Oct;32(10):1348-1351. doi: 10.1097/MEG.0000000000001647.

• Correlation analysis of hepatitis C virus core antigen and low viral loads: Can core antigen replace nucleic acid test? Feng B, Yang RF, Jiang HJ, Xie YD, Zhang HY, Jin Q, Cong X, Wei L.Clin Exp Med. 2020 Feb;20(1):131-141. doi: 10.1007/s10238-019-00588-1.

• Hepatitis C virus (HCV) Infection Rate among Seronegative Hemodialysis Patients Screened by Two Methods; HCV Core Antigen and Polymerase Chain Reaction, Maryam Moini 1, Mazyar Ziyaeyan, Shapoor Aghaei, Mohammad Mahdi Sagheb, Seyed Alireza Taghavi, Mahsa Moeini, Marzieh Jamalidoust, Laleh Hamidpour, Hepat Mon. 2013 May 30;13(6):e9147. doi: 10.5812/hepatmon.9147. eCollection 2013.

Response: The discussion section was rewritten as recommended and suggested references were added.

Comment: References of the manuscript should be updated based on the up to date citations that might be used in the revised “Introduction and discussion” sections as detailed above.

Response: References were updated.

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) 14 Jun 2022

Dear editor

Thank you for forwarding the revised version of the above mentioned paper. -The Authors have responded positively to comments made earlier.

Best Regards

REFEREE: Associate Editor | **Revision** (1) 14 Jun 2022

Authors have successfully addressed the raised comments of the reviewers and AE in their revised submission.

Seyed Moayed Alavian: EIC | **Revision** (1) 15 Jun 2022

Dear Authors,

I am delighted to inform that your manuscript is accepted for publication in Hepatitis Monthly.

Regards,
EIC