

Dear WJH editor,

Thanks for considering and reviewing our submission, MS# 46458. We appreciate all reviewers' encouragement and invaluable comments. The following is our point-to-point response to the comments:

We strongly believe by integrated those invaluable comments, and our revised MS should meet the scientific standard to be published in WJH.

Thanks again.

Ke-Qin Hu, MD

**Reviewer #1:** This submission reported the results of a HCV-Ags EIA test in HCV monoinfection or HCV/HIV coinfection sera and found that this EIA test results were in good accordance to the results of HCV RNA PCR. This is interesting and would have potential to develop a more cost-effective HCV test. However, minor concerns existed and should be addressed.

1. In the study cohort, this HCV-Ags EIA test results were in good accordance to the results of HCV RNA PCR. However, in the additional 5 sera with low viremic HCV infection (HCV RNA load ranged 50-59 IU/mL), 4/5 were tested positive for HCV-Ags EIA. I would like to suggest the author to further test the low detection limit of this HCV-Ags EIA test by serial dilution of HCV infection sera.

Thanks for the comments. As described in our previous report (ref 35), the lowest limit of detection for the HCV-Ags EIA has been determined by a serial dilution test. The present study was not aimed to further test this. Rather, we just want to show our finding that HCV-Ags EIA was tested positive in 4/5 sera with HCV RNA as low as 50-59 IU/L, further confirming the lowest limits of detection of the HCV-Ags assay as previously reported (35).

2. In Results: “As shown in Table 3, in 38 sera with viremic HCV and HIV coinfection, all (100%) were tested negative for HCV-Ags EIA. in 45 sera with viremic HCV and non-viremic HIV coinfection, all (100%) were tested negative for HCV-Ags EIA.” This statement was different from the data presented in Table 3.

Thank you very much for finding these typo, a very important finding. Correction has been made on the revised version.

3. Please briefly describe the encoded gene location in HCV genome of the antigen detected in this assay. Such that the readers do not need to retrieve the referenced paper.

Thanks for the suggestions. The related information has been added.

4. In Discussion, “In the present study, we used a blinded fashion to further test the sensitivity and specificity of the HCV-Ags EIA in HCV sear with monoinfection and HCV/HIV coinfection.” “sear” change to “sera”.

Sorry for the typo. It has been corrected.

5. In Statistical Analysis, the author stated “A 2 x 2 table was used to calculate the test sensitivity, specificity, positive and negative predictive values.” However, these data were not shown in the Results.

Thanks for the comments. This statement has been added to the revised version.

**Reviewer #2:** The manuscript entitled “Hepatitis C Virus Antigens Enzyme Immunoassay (HCV-AgsEIA) for One-step Diagnosis of HCV Co-infection in HIV Infected Individuals” is well performed. In this study, the authors have evaluated HCV-Ags EIA for one-step diagnosis of HCV infection in HIV-infected individuals. Overall, 147 sera were tested by HCV-Ags EIA. According to the results, HCV-Ags test is highly sensitive and specific. As this HCV-Ags test is faster than the previous methods to detect current HCV infection (detection of anti-HCV antibodies by ELISA followed by HCV RT-PCR), this study is very informative and valuable. I have no specific comments to the authors, only some minor language polishing should be checked.

Thank you for your positive comments and encouragement.

**Reviewer #3:** Hu K-Q et al carried out a study assessing the performance of a recently reported antigen enzyme immunoassay for One-step diagnosis of viremic hepatitis C virus infection among HIV-coinfected patients. This a clear manuscript with relevant data. Although the authors punctualize the study limitations regarding the number of samples (last sentence of the MS), it should be emphasised essentially for those viremic HCV samples with lower viral load. There were only included 5 (five) samples close the lower limit, but the HCV genotype was undefined.

This particular segment of samples should be studied more deeply in order to correlate this new HCV EIA assay with HCV RNA quantification assays. This reviewer takes the liberty to share some minor comments:

1. Page 3 "Several HCVcAg assays have been reported ..." Please clarify -at first time- the term "HCVcAg"

Fully agree and appreciated, and the correction has been made.

2. Page 4 "...we have developed a highly sensitive and specific HCV-Ags EIA" Please clarify the HCV antigens involved in this assay (those previously detailed in the manuscript at Hepatology 2016).

Fully agree and appreciated, and the correction has been made.

3. Page 5. " in sera with (1) HCV monoinfection ..." Please check the Term "monoinfection"

Sorry for the typo. It has been corrected.

4. Page 5. Please offer technical details about the HIV viral load test used.

Thanks for the comments. This statement has been added to the revised version.