

Professor Lian-Sheng Ma
President and Company Editor-in-Chief
World Journal of Gastroenterology

Dear Professor Lian-Sheng Ma,

We thank you for your critical review of our manuscript entitled, “A Novel Technique for Visualizing the Hepatic Vascular Architecture Using Superb Microvascular Imaging in Patients with HCV” submitted to *World Journal of Gastroenterology*. We greatly appreciate the very constructive comments and valuable suggestions, which have been incorporated into our revisions to produce what we believe to be a significantly improved and extensively revised manuscript. Please see the attached files for our point-by-point responses to the comments from the reviewer. We have noted our revisions in red text. We appreciate the constructive comments by the reviewer.

Respectfully yours,
Hidekatsu Kuroda, M.D.

Our responses to the comments from reviewer are as follows:

RESPONSES TO REVIEWER

We thank the Reviewer for his/her thoughtful and constructive evaluation of our manuscript. We have addressed all of the Reviewer's concerns in detail. Our responses to the Reviewer's comments are as follows:

1. Authors should state the reason for choosing 'anterior inferior PV'.

We thank the reviewer for this valuable suggestion. The reason that the anterior-inferior portal vein was chosen is that trans-abdominal ultrasound can provide a stable and high-resolution image. In addition, there is the advantage that SMI signals are easy to detect, because the anterior inferior portal vein does not run horizontally with the probe. We have added to this information to the MATERIALS AND METHODS. (Page 7)

2. Need more details in the methods -

How long it took to examine a single patient? Is the 2 radiologists examined the patient one after another immediately? Was the patient able to co-operate for 2

immediate scans?

Thank you for these comments. The average time required for the SMI examination was 60.5 ± 20.1 seconds. Two radiologists performed the ultrasound examination including SMI immediately in succession. Because of low invasiveness of SMI, all patients were fully able to cooperate. We have added this information to the RESULTS. (Page 10)

3. 'Two third parties blindly classified each of the SMI images as one of the five types based on the vascular pattern..' - Is this in addition to 2 rads or by third parties you mean the performing radiologists?

We thank the reviewer for this valuable suggestion. Two additionally radiologists who did not perform SMI blindly classified each of the SMI images as one of the five types according to the vascular pattern. We have modified the text appropriately. (Page 7)

4. In page 12, in disadvantages of liver biopsy, include 'sampling error'

We fully agree and have added this information to the DISCUSSION. (Page 12)

5. In page 12, "SMI is difficult in obese individuals or in patients with severe fatty liver due to the depth of the subcutaneous fat" - How commonly the authors experienced this problem. I mean can you give us a number like in how many patients you encountered these practical problems? Was any patient could not be optimally examined due to obesity or fatty liver?

We thank the reviewer for this valuable suggestion. The hepatic vasculature is often poorly shown in severe fatty liver, and poor trans-abdominal visualization may be due to severe obesity. We have modified the text in the DISCUSSION (Page 12). Patients with severe fatty liver ($n = 4$) and severe obesity ($n = 4$) showed poor SMI signals. As a result, we excluded these patients from the study. We have added the number of patients to the MATERIALS AND METHODS (Page 6).

6. Authors need to include more details on the basis/physics of SMI. Authors do mention it is low cost. How it compares to CEUSG and elastography. Can it be added to an already existing machine?

We have made the appropriate corrections as advised by the reviewer. We have added the details on the basis/physics of SMI to the DISCUSSION. (Page 11) Regarding cost, we did not compare SMI with CEUS or elastography in this study. Therefore, we have deleted the description about the cost of SMI in the DISCUSSION. (Page 12)