

## Non-invasive evaluation of liver fibrosis by acoustic radiation force impulse and aminotransferase:platelet ratio index in chronic hepatitis C

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**Author contributions:** Karagoz E and Ozturker C designed the research and wrote the letter; Sivrioglu AK revised the letter.

**Conflict-of-interest statement:** The author(s) indicate no potential conflicts of interest.

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Received: November 26, 2015  
Peer-review started: November 26, 2015  
First decision: December 22, 2015  
Revised: December 28, 2015  
Accepted: January 16, 2016  
Article in press: January 19, 2016  
Published online: February 8, 2016

### Abstract

In a previous issue of the *World Journal of Gastroen-*

*terology*, we have read the article by Li *et al* with great interest. We would like to thank the authors for their comprehensive contribution. However, it is our wish to make minor criticism over the present study from the perspective of methodology.

**Key words:** Cirrhosis; Intercostal approach; Subcostal approach; Acoustic radiation force impulse; Liver fibrosis

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**Core tip:** Hepatitis B virus infection is still one of the leading causes of cirrhosis and hepatocellular carcinoma. Liver biopsy is the gold standard method to assess the severity of liver fibrosis. However, there are several limitations of liver biopsy, including its invasive nature, small tissue sample size, and subjective grading system. Nowadays, noninvasive parameters have been utilized to evaluate liver histology. Additionally, ultrasound-based techniques, such as acoustic radiation force impulse have gained popularity in assessing liver fibrosis. Herein, we aimed to make a minor criticism regarding this study.

Karagoz E, Ozturker C, Sivrioglu AK. Non-invasive evaluation of liver fibrosis by acoustic radiation force impulse and aminotransferase:platelet ratio index in chronic hepatitis C. *World J Hepatol* 2016; 8(4): 263-264 Available from: URL: <http://www.wjgnet.com/1948-5182/full/v8/i4/263.htm> DOI: <http://dx.doi.org/10.4254/wjh.v8.i4.263>

### TO THE EDITOR

In a previous issue of the *World Journal of Gastroenterology*, we have read the article by Li *et al*<sup>[1]</sup> with great interest. We would like to thank the authors for their

comprehensive contribution. However, it is our wish to make minor criticism over the present study from the perspective of methodology.

First, the measurements of Acoustic Radiation Force Impulse Imaging were performed in the right liver lobe through the intercostal space in present study<sup>[1]</sup>. Uslu *et al*<sup>[2]</sup> demonstrated that subcostal approach to the liver parenchyma was significantly superior to intercostal approach for the evaluation of liver stiffness in their study. As the pressure was transmitted better to liver parenchyma and the anterior abdominal wall, we are of the opinion that subcostal approach would give better results than intercostal approach in terms of determining the elasticity of the liver.

Second, it would have been better, if the authors had stated the length of the biopsy material and the number of the pieces of the portal tracts. Fibrosis is heterogeneously distributed throughout the liver, whereas a biopsy evaluates only 1/50000 of the total volume of the liver<sup>[3]</sup>. Additionally, if the biopsy material is not long enough, appropriate evaluation cannot be done. A length of at least 25 mm is required to assess

the fibrosis score accurately<sup>[3]</sup>. It would have been better, if the authors had mentioned these conditions as limitations.

Further studies are needed to indicate the role of acoustic radiation force impulse imaging method in the management of liver fibrosis and cirrhosis in patients with chronic hepatitis C.

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**P- Reviewer:** Grassi A, Wang K **S- Editor:** Qi Y  
**L- Editor:** A **E- Editor:** Liu SQ





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