



Non-invasive evaluation of Liver stiffness in nonalcoholic fatty liver disease: Supersonic Shear Imaging, FibroScan or ARFI?

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We have read the article by Cassinotto et al. with interest in a recent issue of the *Hepatology* [1]. They concluded that Acoustic elastic radiation force impulse (ARFI), FibroScan (FS) and Supersonic Shear Imaging (SSI) were useful tools to stage the severity of fibrosis in patients with non-alcoholic fatty liver disease. We would like to thank the authors for their invaluable contribution. However, we would like to report few concerns regarding this study from a methodological point of view.

First, it is stated in the present study that the measurements of Acoustic Radiation Force Impulse (ARFI) were performed in the right liver lobe through the intercostal space in the supine position [1]. In contrast to this study, Uslu et al demonstrated that subcostal approach to the liver parenchyma was significantly superior to intercostal approach for the evaluation of stiffness [2]. If the ARFI measurements had been performed through the subcostal space, the pressure would have been transmitted better to liver parenchyma, and this would have given better results than intercostal approach in terms of determining the elasticity of the liver.

Second, the length of the biopsy material was at least 1 cm in present study. Bedossa et al. demonstrated 40 mm long biopsy was considered an optimal specimen for accurate evaluation of liver fibrosis in the same study [3]. Additionally, the number of the pieces of the portal tracts was 6 in present study. According to American Association of Study of Liver Disease guidelines, an adequate number of portal tracts has been proposed to be greater than 11 [4]. It would have been better, if the authors had been mentioned these constitute limitations in the study.

Third, Trovato et al. demonstrated that ARFI and TE of the spleen is correlated with Ishak fibrosis staging, and could be a possible additional tool for the diagnosis of liver fibrosis [5]. It would have been relevant, if the authors had evaluated their patients according to spleen measurements of these techniques.

In conclusion, further studies are required to demonstrate the role of ARFI and SSI methods in the management of patients with non-alcoholic fatty liver disease.

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