Differences in the characteristics of hepatocellular carcinoma between cirrhotic and non-cirrhotic livers

Pankaj Gupta¹

Received: 12 July 2020 / Revised: 12 July 2020 / Accepted: 25 July 2020 / Published online: 6 August 2020
© Springer Science+Business Media, LLC, part of Springer Nature 2020

To the editor,

I read with interest the article titled “Hepatocellular carcinoma in non-cirrhotic versus cirrhotic liver: a clinico-radiological comparative analysis” published in this issue [1]. The authors have reported interesting and relevant results. However, I want to highlight certain aspects.

The major issue is the way the livers have been classified as cirrhotic and non-cirrhotic. The authors have relied on grayscale ultrasound for this categorization. The classification of livers into cirrhotic and non-cirrhotic using morphological criteria, on grayscale ultrasound only, is far from perfect. Grayscale ultrasound is subjective with poor inter-observer agreement [2]. Without secondary features of portal hypertension, one-fifth of the patients who are suspected of liver cirrhosis based only on echotexture and morphology on grayscale ultrasound have mild-to-moderate or no fibrosis on liver biopsy [3]. Therefore, one should be cautious in diagnosing cirrhosis based on the grayscale ultrasound alone.

Elastography allows objective assessment of the liver stiffness and steatosis. Although, elastography can be performed using ultrasound or magnetic resonance imaging, the former is more popular because of the cost and time effectiveness. Ultrasound elastography can be performed as transient elastography (fibroscan) or shear wave elastography [4, 5]. In the current era, all patients with suspicion of chronic liver disease undergo elastography of the liver as an integral part of their management. It will be useful if authors report the data of elastography which will help establish the actual number of patients that had cirrhosis and non-alcoholic steatohepatitis.

The authors performed biopsy of the mass in all the cases. It will be useful to know whether they sampled some part of the adjacent liver parenchyma not involved by the mass. This would have helped to provide histopathological correlate of the degree of fibrosis. The differences in the tumor characteristics may actually be related to the different stages of fibrosis (spectrum) rather than the “dichotomous” cirrhotic and non-cirrhotic livers proposed by the authors.

Finally, it will be useful to report the treatment received by the two cohorts.

Funding None.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

References

1. Jamwal R, Krishnan V, Kushwaha DS, Khurana R. Hepatocellular carcinoma in non-cirrhotic versus cirrhotic liver: a clinico-radiological comparative analysis. *Abdom Radiol (NY)*. 2020;45(8):2378–2387.
2. Kutcher R, Smith GS, Sen F, et al. Comparison of sonograms and liver histologic findings in patients with chronic hepatitis C virus infection. *J Ultrasound Med* 1998;17:321–325.
3. Wu S, Tu R, Liang X. Patchy echogenicity of the liver in patients with chronic hepatitis B does not indicate poorer elasticity. *Ultrasonography* 2019;38:327–335. 23.
4. Kelly EM, Feldstein VA, Parks M, Hudock R, Etheridge D, Peters MG. An assessment of the clinical accuracy of ultrasound in diagnosing cirrhosis in the absence of portal hypertension. *Gastroenterol Hepatol (N Y)* 2018;14:367–373. 24.
5. Ferraioli G, Tinelli C, Zicchetti M, Above E, Poma G, Di Gregorio M, et al. Reproducibility of real-time shear wave elastography in the evaluation of liver elasticity. *Eur J Radiol* 2012;81:3102–3106.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This comment refers to the article available online at <https://doi.org/10.1007/s00261-020-02561-z>.

✉ Pankaj Gupta
Pankajgupta959@gmail.com

¹ Department of Radiodiagnosis, Postgraduate Institute of Medical Education and Research, Chandigarh 160012, India