Liver INTERNATIONAL —WILEY— 2307

DOI: 10.1111/liv.14612

Author response to Letter to the Editor: 'Chronological change in alpha-foetoprotein levels in hepatocellular carcinoma after eradication of hepatitis C virus'

To the Editor,

We thank Dr Fukumoto and colleagues for their letter related to our manuscript.[1,2] There are limited data on sensitivity of alpha-foetoprotein (AFP) for hepatocellular carcinoma (HCC) detection in patients with cirrhosis who achieved sustained virologic response (SVR) after direct-acting antiviral (DAA) therapy for hepatitis C virus (HCV) infection.[3] Our study was not able to directly address whether including AFP in HCC surveillance in this population is associated with improved outcomes, for two reasons. First, in our cohort, AFP was infrequently used for HCC surveillance (at least in conjunction with imaging, as we did not consider AFP-only surveillance) with median proportion of time covered by both AFP and ultrasound of 0%. Second, only a small proportion of patients had received DAA therapy as the study period was largely in the pre-DAA era.

With the caveat that data are limited in patients with HCV and SVR, we believe that the balance of evidence favours inclusion of AFP in HCC surveillance. In a recent meta-analysis, AFP plus ultrasound demonstrated higher sensitivity than ultrasound alone for early-stage HCC detection (63% vs 45%).[4] Longitudinal AFP measurement may further increase sensitivity for HCC detection.[5] Further studies are required to establish sensitivity and specificity of ultrasound with or without AFP in patients with HCV cirrhosis after SVR with DAA therapy, to determine the benefits of incorporating AFP into HCC surveillance in this population.

ACKNOWLEDGEMENTS

VLC is in part supported by an American Association for the Study of Liver Diseases Clinical, Translational and Outcomes Research Award. NDP is in part supported by grant NCI R01 CA222900.

CONFLICTS OF INTEREST

Vincent Chen: None. Neehar Parikh: Consultant: Bristol-Myers Squibb, Exelixis, Eli Lilly, Freenome; Advisory Board: Eisai, Bayer, Exelixis, Wako Diagnostics; Research Grants: Bayer, Target Pharmasolutions, Exact Sciences.

Vincent L. Chen
Neehar D. Parikh

Division of Gastroenterology and Hepatology, Department of Internal Medicine, University of Michigan, Ann Arbor, MI, USA

Correspondence
Vincent L. Chen, MD, MS, 1500 East Medical Center Drive, Taubman Center SPC 3912, Ann Arbor, MI 48109, USA.
Email: vichen@med.umich.edu

ORCID

Vincent L. Chen https://orcid.org/0000-0002-0157-6066
Neehar D. Parikh https://orcid.org/0000-0002-5874-9933

REFERENCES

1. Chen VL, Singal AG, Tapper EB, Parikh ND. Hepatocellular carcinoma surveillance, early detection and survival in a privately insured US cohort. *Liver Int*. 2020;40(4):947-955.
2. Fukumoto T, Minami T, Tateishi R, Koike K. Chronological change in alpha-fetoprotein levels in hepatocellular carcinoma after eradication of hepatitis C virus. *Liver Int*. 2020. https://doi.org/10.1111/liv.14544
3. Tayob N, Richardson P, Kanwal F, et al, Performance of AFP-based hepatocellular carcinoma surveillance in cirrhosis patients with cured HCV. *Gastroenterology*. 2017;152(5):S1077-S1078.
4. Tzartzeva K, Obi J, Rich NE, et al, Surveillance imaging and alpha fetoprotein for early detection of hepatocellular carcinoma in patients with cirrhosis: a meta-analysis. *Gastroenterology*. 2018;154(6):1706-1718.e1.
5. Tayob N, Lok AS, Do KA, Feng Z. Improved detection of hepatocellular carcinoma by using a longitudinal alpha-fetoprotein screening algorithm. *Clin Gastroenterol Hepatol*. 2016;14(3):469-475.e2.