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REFERENCES

- 1) Tapper EB, Parikh N, Sengupta N, Mellinger J, Ratz D, Lok AS, Su GL. A risk score to predict the development of hepatic encephalopathy in a population-based cohort of patients with cirrhosis. HEPATOLOGY 2017 Nov 1. doi: 10.1002/hep.29628. [Epub ahead of print]
- 2) Lv XF, Ye M, Han LJ, Zhang XL, Cai PQ, Jiang GH, et al. Abnormal baseline brain activity in patients with HBV-related cirrhosis without overt hepatic encephalopathy revealed by resting-state functional MRI. Metab Brain Dis 2013;28:485-492.
- Chen HJ, Wang Y, Yang M, Zhu XQ, Teng GJ. Aberrant interhemispheric functional coordination in patients with HBV-related cirrhosis and minimal hepatic encephalopathy. Metab Brain Dis 2014;29:617-623.

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Reply

We thank Dr. Zheng and colleagues for their interest in our study on the risk of hepatic encephalopathy in a population-based cohort of American veterans.⁽¹⁾ Zheng et al. indicated that our study included few Asians. Given that our model was comprised of markers of liver function (albumin and bilirubin) and clinically significant portal hypertension (use of nonselective beta-blockers) but not race, we have little reason to suspect that the performance of this model will be different in Asians. Zheng et al. questioned whether the impact of statins is linked to obesity, which they posit to be more prevalent in American patients with cirrhosis. Available data suggest that the beneficial effect of statins in patients with portal hypertension is related to improvements in vascular endothelial function and decreased inflammatory response to gut bacteria and not to cholesterol-lowering.⁽¹⁾ Indeed, there are data that statins prevent decompensation in Asian patients with hepatitis B–related cirrhosis.⁽²⁾

Zheng et al. posit that hepatitis B may be associated with cognitive changes (which may not have been captured in our data set).⁽³⁾ To our knowledge, evidence to support an effect of hepatitis C virus (more prevalent in our cohort) on cognition and brain function is more robust.⁽⁴⁾ However, and more importantly, there are no data linking the cerebral effects of either hepatitis B or C virus to development of hepatic encephalopathy in patients with no cirrhosis or increased risk of hepatic encephalopathy in those with cirrhosis.

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REFERENCES

- Tapper EB, Parikh N, Sengupta N, Mellinger J, Ratz D, Lok AS, et al. A risk score to predict the development of hepatic encephalopathy in a population-based cohort of patients with cirrhosis. HEPATOLOGY 2017; doi:10.1002/hep.29628.
- 2) Huang Y-W, Lee C-L, Yang S-S, Fu SC, Chen YY, Wang TC, et al. Statins reduce the risk of cirrhosis and its decompensation in chronic hepatitis B patients: a nationwide cohort study. Am J Gastroenterol 2016;111:976-985.
- Chen H-J, Wang Y, Yang M, Zhu XQ, Teng GJ. Aberrant interhemispheric functional coordination in patients with HBV-related cirrhosis and minimal hepatic encephalopathy. Metab Brain Dis 2014;29:617-623.
- Byrnes V, Miller A, Lowry D, Hill E, Weinstein C, Alsop D, et al. Effects of anti-viral therapy and HCV clearance on cerebral metabolism and cognition. J Hepatol 2012;56:549-556.

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