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CORRESPONDENCE

Reply

We appreciated the comments by Liu and colleagues on our recent article.[1] As already discussed in the paper, the overall performance of prognostic models commonly employed to predict the outcome of patients with cirrhosis, including the Model for End-Stage Liver Disease,[2] is largely unsatisfactory both in terms of accuracy and calibration.

In our study, a competing risks survival analysis was performed,[3] with orthotopic liver transplant (OLT) and death for extrahepatic causes considered as competing events for liver-related death in the overall cohort. OLT was not considered as a competing event for death in the older adult cohort given that OLT is generally not recommended in patients older than 70 years in Europe. Indeed, in our cohort, no older adult patient received OLT. Therefore, we do not believe that this could significantly affect the performance of our model. Moreover, transplant-free survival was not significantly different in the first five years of follow up comparing the two cohorts.

The incorporation of serum liver enzymes and comorbidities such as systemic hypertension did not improve the accuracy of our prognostic model. Moreover, in our study, the prevalence of comorbidities such as diabetes, chronic kidney disease, coronary heart disease, and chronic obstructive pulmonary disease did not significantly differ between younger and older adult patients. As discussed in the paper, this was probably due to the application of stringent inclusion criteria in older adults. It is therefore very unlikely that the variables employed in our model were influenced by comorbidities, although the performance of the model in less stringently selected patients remains to be assessed.

Finally, our study included only Caucasian subjects mainly with alcohol (36%) and viral (27%) etiologies. Thus, these results obviously remain to be confirmed in other ethnicities with different prevalence of cirrhosis etiologies.[4]

Prediction of prognosis in patients with decompensated cirrhosis treated with transjugular intrahepatic portosystemic shunt is challenging. For this reason, further studies with the incorporation of covariates related to the nutritional status and sarcopenia, cardiovascular parameters, inflammation, and intestinal microbiota are warranted.

AUTHOR CONTRIBUTIONS

Francesco Vizzutti, Ciro Celsa, Salvatore Battaglia, Roberto Miraglia, Marco Enea, Fabio Marra, Antonio Colecchia, Calogero Cammà, and Filippo Schepis conceived, reviewed, and approved the manuscript.

CONFLICT OF INTEREST

Calogero Cammà advises Eisai, Ipsen, Merck Sharp & Dohme, Roche, AstraZeneca, and Bayer. Circo Celsa is on the speakers' bureau for Eisai, MSD, and Ipsen. Francesco Vizzutti receives lecture fees from Gore.

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