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Comment on: Validation of the Liver Transplant Risk Score in Europe

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Dear Editor

We write regarding the recent paper by Ashwat *et al.*[1] which was recently discussed at 'CRAMSURG', an online journal club based in the UK (www.cramsurg.org).

We would like to congratulate the authors for their efforts in performing this study. We discussed some issues that we would like to raise.

The survival analysis conducted by the authors is certainly helpful and informative. However, we did feel that re-transplantation is an important outcome and wondered if consideration was given to including this in a survival endpoint such as 'transplant survival', which includes both death and transplant failure. Furthermore, it was unclear to us why sex was included in the Cox regression model despite not being statistically significantly associated with mortality in the univariate analysis.

This study included a very large sample of patients from the European Liver Transplant Registry (ELTR). To understand the applicability of the Liver Transplant Risk Score (LTRS) in clinical practice it would have been useful to know what proportion of patients from the ELTR were included in the study. Patients undergoing liver transplant for hepatocellular carcinoma were not included in the original study describing the LTRS. Why were they included in this analysis?

The original LTRS was designed using artificial neural networks (ANN). Was consideration given to use the ELTR data set as a test data set for the ANN algorithm used to design the LTRS itself?

Finally, the authors highlight how the LTRS can be employed to modify risk factors before transplant. However, the only modifiable factor included in the LTRS is BMI. However, a BMI reduction is difficult to achieve in a population affected by liver disease where variables such as malnutrition, sarcopenia, and fluid shift significantly contribute to weight loss.

Disclosure

The authors declare no conflict of interest.

Reference

1. Ashwat E, Kaltenmeier C, Liu H, Reddy D, Thompson A, Dharmayan S *et al.* Validation of the liver transplant risk score in Europe. *Br J Surg* 2022:znac304; DOI: 10.1093/bjs/znac304 [Epub ahead of print]

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