**Predicting Posttransplant Diabetes Mellitus in Liver Transplant Recipients: A Retrospective Cohort Study**

**Aim** To investigate the clinical characteristics and risk factors for post transplantation diabetes mellitus (PTDM) after liver transplantation (LT).

**Method** Data were collected from 893 inpatients, outpatients, and emergency patients who underwent regular follow-up after LT at a tertiary hospital in Sichuan Province, China, from January 2011 to July 2024. The clinical characteristics and risk factors for PTDM patients after LT were analyzed.

**Result** This retrospective study enrolled 893 patients who were randomly divided into training and validation sets at a ratio of 7:3 by R software. Three predictors were finally included: hospitalized fasting blood glucose (OR = 2.517, 95% CI: 1.193-5.919), exclusion (OR = 2.583, 95% CI: 1.278-5.710), follow-up HbA1c (OR = 4.290, 95% CI: 3.184-5.945), which were independently associated with PTDM. A nomogram was then constructed and validated based on the above three variables. The area under the receiver operating characteristic (ROC) curve (AUC) of the model was calculated, and those of the training set and validation set were 0.840 and 0.889, respectively. The Hosmer‒Lemeshow test showed that the model fit well, with P values of 0.701 and 0.690. The calibration curve of the nomogram was close to the ideal diagonal. In addition, the decision curve analysis shows that the net income of the model is significantly better.

**Conclusion** Factors such as hospitalized fasting blood glucose, exclusion, follow-up HbA1c were independently associated with the occurrence of PTDM. The model may assist clinical staff in determining the risk factors for PTDM and provide a reference for formulating relevant treatment and care programs.