

OUTCOMES AND RISK FACTORS FOR DE NOVO MAJOR DEPRESSIVE DISORDER AFTER LIVER TRANSPLANTATION: NESTED CASE-CONTROL STUDY

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Background : Major depressive disorder (MDD) is a major psychiatric complication of liver transplantation (LT). Here, we aimed to analyze the impact of de novo MDD on survival post-LT and identify risk factors for this disorder among LT recipients.

Methods : A retrospective analysis was conducted on 1350 LT recipients at Severance Hospital, Korea, from July 2005 to December 2022. Patients with MDD were matched 1:5 with controls using a nested case-control design to control for immortal time bias.

Results : During follow-up post-LT, 58 patients (4.3%) were newly diagnosed with MDD. The median time from LT to MDD diagnosis was 316 (interquartile range 46-920) days. Patients with MDD had significantly lower graft survival rates than controls at 1, 3, and 5 years after matching (89.5%, 75.3%, and 66.5% vs. 95.5%, 91.5%, and 86.4%, respectively; $P=0.003$). Multivariable Cox regression identified de novo MDD as an independent risk factor for reduced graft survival (hazard ratio 2.39, 95% confidence interval [CI] 1.15-4.98, $P=0.003$). Independent risk factors for de novo MDD included female sex (odds ratio [OR] 2.29, 95% CI 1.16-4.53, $P=0.017$), alcoholic liver disease (OR 2.36, 95% CI 1.16-4.75, $P=0.016$), pre-transplant encephalopathy (OR 2.95, 95% CI 1.49-5.79, $P=0.002$), and lower hemoglobin levels (OR 0.85, 95% CI 0.73-0.98, $P=0.025$).

Conclusions : In our matched population of nested case controls, de novo MDD significantly reduced the survival of LT recipients. Screening and early intervention are required for LT recipients with risk factors for MDD.

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