EP 044

Physical Performance Decline During The Early Post-transplantation Period Affects Survival After Living Donor Liver Transplantation: Analyses With KOTRY Data

Deok-Gie KIM, Jae Geun LEE, Hwa-Hee KOH, **Minyu KANG**, Myoung Soo KIM, Dong Jin JOO*

Surgery, Yonsei University College Of Medicine, REPUBLIC OF KOREA

Background : Patient physical performance has been emphasized in liver transplant recipients; however, evidence for living donor liver transplantation (LDLT) patients is lacking. This study investigated the impact of physical performance decline during the early post-transplantation period on survival and risk factors for this decline in LDLT recipients.

Methods : From national registry data, 2703 LDLT patients were divided into two groups based on the change in their Karnofsky performance status (KPS) between 1 and 6 months post-transplantation: declined KPS (n=188) and control (n=2515). Multivariable analyses were conducted to control for confounders, including post-transplantation complications.

Results : Estimated 5-year patient survival rates were 91.6% in the declined KPS group and 96.3% in the control group, favoring the latter (P = 0.003). The survival hazard of KPS decline was significant in a baseline covariates-adjusted Cox model (hazard ratio [HR] 2.60, 95% confidence interval [CI]: 1.37–4.95) and an adjusted model accounting for post-transplantation complications (HR 3.38, 95% CI: 1.70–6.72). In subgroup analyses, KPS decline independently reduced survival in patients without complications (HR 3.95, 95% CI: 1.67–9.34), and the trend was similar in patients with complications, although significance was marginal (HR 3.02, 95% CI: 0.98–9.27). We found that only post-transplantation complications, such as rejection, infection, bile duct complication, and vascular complication, were significant risk factors for KPS decline after LDLT.

Conclusions : Physical performance decline during the early post-transplantation period independently reduced survival rates, and post-transplantation complications were the only significant risk factors for physical performance decline in LDLT recipients.

Corresponding Author : **Dong Jin JOO** (djjoo@yuhs.ac)