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## **Outcomes of the patients requiring perioperative renal replacement therapy during liver transplantation**

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**Objectives:** Patients undergoing liver transplantation (LT) are prone to acute kidney injury (AKI) and considerable portion of AKI patients require renal replacement therapy (RRT) during the perioperative period of LT. Dialysis requiring AKI is known to increase in-hospital mortality. Nevertheless, long-term outcomes among the patients requiring RRT still need further investigation.

**Methods:** This nationwide, population-based cohort study used data from the Korean national health insurance system. Adult patients admitted to the ICU in tertiary hospitals in Korea during the perioperative period of LT, between 2006 and 2015 were considered. Patients who received RRT, admitted to ICU or underwent LT prior to the index admission were excluded. The study group included the patients who received RRT during the perioperative period of LT and the control group consisted with patients who did not receive RRT. Data regarding demographics, comorbidities, and ICU care modalities were also collected for adjustment.

**Results:** Of 6879 patients, 968 were in study group and 5911 were in control group, respectively. All-cause mortality [adjusted hazard ratio (HR) 1.519 (1.263-1.827),  $P < 0.0001$ ] and dialysis dependence after discharge [adjusted hazard ratio (HR) 2.926 (2.337-3.663),  $P < 0.0001$ ] were increased in patients with RRT during the perioperative period of LT. The risk of major adverse cardiovascular events (MACE) were not significantly different between two groups [adjusted hazard ratio (HR) 1.165 (0.797-1.703),  $P = 0.4303$ ].

**Conclusions:** Requirement of RRT during the perioperative period of LT had worse long term mortality and renal survival. MACE in patients received RRT was comparable to the control group.