

## The Impact of Body Mass Index on Survival in Korean Hemodialysis Patients: A Prospective Multicenter Cohort Study

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**Introduction:** The association of body mass index (BMI) with survival in patients on hemodialysis (HD) is not consistent across different ethnic groups. We investigated the influence of BMI on mortality in Korean HD patients.

**Methods:** Patients on maintenance HD were collected from a multicenter prospective cohort study in Korea between 2009 and 2014. Baseline BMI was categorized as five groups by quintiles. Cox regression analysis was used to calculate the hazard ratio (HR) of mortality with a BMI of quintile 3 (BMI 21.6-23.0 kg/m<sup>2</sup>) as the reference. Clinical variables such as age, sex, dialysis duration, coronary artery disease, diabetes mellitus, hemoglobin, C-reactive protein were used for adjustment.

**Results:** A total of 2,833 patients were enrolled with mean 24.2±13.2 months of follow-up duration. The mean BMI was 22.6±3.3 kg/m<sup>2</sup>. The multivariate analysis revealed that the highest quintile of BMI (>25.1 kg/m<sup>2</sup>) was associated with lower mortality (HR=0.65, 95 %confidence interval=0.45-0.93, p=0.018). However, the other quintiles of BMI showed equivalent survival compared with the reference category of BMI quintile 3.

**Conclusions:** Higher baseline BMI levels predicted greater survival, but lower BMI levels were not related with high mortality in Korean HD patients. Additional studies are needed to evaluate the effect of changes in BMI on the long-term survival in maintenance HD patients.

**Key Words:** 체질량지수, 혈액투석, 생존률

Body mass index, Hemodialysis, Survival