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Propensity sore에 근거한 한국인 환자에서의 복막투석과 혈액투석간의 사망률 비교: 인구기반 연구

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A Propensity Score-based Comparison of Mortality in Patients on Hemodialysis and Peritoneal Dialysis in Korea: A Population-based Study

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Aims: Given a lack of prospective randomized controlled comparison, there have been many debates whether the choice of dialysis modality affects mortality rate of end-stage renal disease (ESRD) patients. In this study, we aimed to compare survival of incident dialysis patients between hemodialysis (HD) and peritoneal dialysis (PD) using the Health Insurance Review & Assessment Service (HIRA) database, with the intention for a complete survey.

Methods: We included 32,280 adult who initiated dialysis from January 1, 2005 to December 31, 2008 and followed up (median 26.5 months, range of 3-59 months). An intention-to-treat analysis was performed both in a propensity score-matched cohort and in propensity score-adjusted multivariate model.

Results: We matched 7,049 patient pairs with similar propensity scores from each modality and compared survival rate, and found that there was a significantly higher mortality rate in PD patients compared to HD patients (log-rank test, $p<0.001$). In addition, the multivariable and propensity score-adjusted Cox regression analysis including the entire participants was performed and showed a similar pattern (PD vs. HD, hazard ratio, 1.23; 95% confidence interval, 1.17-1.29; $p<0.001$). Subsequent subgroup analyses according to various baseline characteristics revealed that in older patients (≥55 years), except only for the subgroup of patients having no comorbidities, PD was consistently associated with a higher mortality rate, whereas, in younger patients (<55 years), regardless of underlying conditions, the survival rate of PD patients was comparable to that of HD patients.

Conclusion: while overall mortality rate was higher in PD patients, mortality rate of the patients aged over 55 years with no comorbidities or those aged less than 55 years, regardless of comorbidities, was comparable to that of HD patients. Further prospective trials are warranted.

Key Words: 혈액투석, 복막투석, 사망률, 프로펜시티 점수
Hemodialysis, Peritoneal dialysis, Mortality, Propensity score