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Early Referral to Nephrologist Improved Mortality of Newly Diagnosed End Stage Renal Disease Patients

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Background and objectives: Over the past several years, interest has evolved in evaluating the timing of nephrology referral as an important variable related to prognosis. The purpose of this study was to explore the impact of early referral to nephrologist on patient survival in a subset of patients from Comprehensive Prospective Study of Clinical Research Center for End Stage Renal Disease (CRC ESRD) in Korea.

Materials and Methods: A total of 1029 incidental ESRD patients newly diagnosed from July 2008 to October 2011 were enrolled. Data were served from CRC ESRD nationwide web-based multi-center joint network prospective cohort in the Korea. Patients were classified arbitrarily as early referrals if their first encounter with a nephrologist occurred longer than 1 year, number of visit to nephrologist >2 times, and education for dialysis (from nurse or nephrologist) prior to initiate dialysis.

Results: Time from referral to dialysis was significantly longer in 522 early referral patients (ER) than in 507 late referral patients (LR) (63.6 ± 59.6 vs. 10.7 ± 28.1 mo, $p < 0.001$). Emergent hemodialysis was required in 217 (41.6%) of ER compared with 269 (53.1%) of LR ($p < 0.001$). The survival rate of ER was better than that of LR ($p = 0.049$). The 1-year and 2-year survival rates of ER were 95.9% and 90.9%, respectively, compared to 92.1%, and 80.3% of LR. In diabetic ESRD patients, the survival rate of ER was significantly higher than that of LR ($p = 0.032$). The difference was significant after adjusting for covariates (OR 0.16 95% CI 0.03–0.93, $p = 0.042$).

Conclusion: Early referral to nephrologist is associated with reduced mortality especially in diabetic chronic kidney disease patients.

Key Words: 조기 의뢰, 투석, 말기신부전

Early referral, Dialysis, End stage renal disease