

말기신부전 임상연구센터를 통한 말기신부전 환자의 기초자료 및 1년간 추적 관찰

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Baseline Characteristics & 1-year Patient Outcome in the Clinical Research Center for ESRD Cohort

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Backgrounds: During the last few decades, the incidence of end-stage renal disease (ESRD) has consistently increased, and its prevalence reached 176 patients per million persons in 2009 in Korea. However, there has been no nation-wide database of prospective cohort study to date. Therefore, we conducted a prospective, multicenter, observational cohort study in 728 incident ESRD patients from 34 centers in Korea.

Methods: Using database from Clinical Research Center (CRC) for ESRD study, we performed an interim analysis to delineate baseline characteristics and 1-year patient outcome in patients who initiated dialysis between May 2009 and January 2011. The database included demographic and clinical data, medication, underlying renal diseases, comorbidities, and biochemical and echocardiographic parameters.

Results: The mean age was 56 years and 61.1% were male. The most common cause of ESRD was diabetes mellitus (45.9%), followed by hypertension (28.4%). 517 patients (71.0%) started hemodialysis as the initial dialysis modality. The mean duration of dialysis was 10.2 months. At baseline, mean systolic and diastolic pressure were 138.9 and 78.6 mmHg, respectively. Patients were on anti-hypertensive medications with the average of 2.35 pills, while renin-angiotensin system blockers were most commonly prescribed (N=419, 57.6%). However, systolic blood pressure >140 mmHg was observed in 383 patients (52.5%). In diabetic patients, mean HbA1c level was 6.5%, where 70.3% of the patients had HbA1c level <7.0%. In this cohort, mean concentrations of hemoglobin, calcium, phosphorus, and parathyroid hormone were 8.8 g/dL, 7.8 mg/dL, 5.3 mg/dL, and 249.8 pg/mL, respectively. Echocardiographic findings revealed that left ventricular hypertrophy was present in 78.5% of the patients. During follow-up, 24 patients died (3.3%) and 1-year patient survival rate was 96.7%. Cardiovascular event was the most common cause of death. There was no difference in mortality according to dialysis modality and diabetic status.

Conclusion: This study showed baseline characteristics and 1-year patient outcome in CRC for ESRD study cohort. A longer period of follow-up is required for the comprehensive analysis on factors affecting adverse outcomes in these patients.

Key Words: End-stage renal disease, Baseline characteristics, Cardiovascular mortality