ASSOCIATIONS OF EMPLOYMENT STATUS AND EDUCATIONAL LEVELS WITH MORTALITY AND HOSPITALIZATION IN THE DIALYSIS OUTCOMES AND PRACTICE PATTERNS STUDY IN JAPAN

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Introduction and Aims: Socioeconomic status (SES) factors such as employment, educational attainment, income, and marital status can affect the health and well-being of the general population and have been associated with the prevalence of chronic kidney disease (CKD). However, no studies to date in Japan have reported on the prognosis of patients with CKD with respect to SES. This study aimed to investigate the inﬂuences of employment and education level on mortality and hospitalization among maintenance hemodialysis (HD) patients in Japan.

Methods: Data on 7974 HD patients enrolled in Dialysis Outcomes and Practice Patterns Study phases 1-4 (1999-2011) in Japan were analyzed. Employment status, education level, demographic data, and comorbidities were abstracted at entry into DOPPS from patient records. Mortality and hospitalization events were collected during follow-up. Patients on dialysis < 120 days at study entry were excluded from the analyses. Cox regression modelled the association between employment and both mortality and hospitalization among patients < 65 years old. The association between educational and employment was also assessed. The association between patient characteristics and employment among patients < 65 years old was assessed using logistic regression.

Results: During a median follow-up of 24.9 months (interquartile range, 18.4-32.0), 10% of patients died and 43% of patients had an inpatient hospitalization. Unemployment was associated with mortality (hazard ratio [HR]= 1.54; 95% conﬁdence interval [CI]: 1.11-2.13) and hospitalization (HR=1.23; 95% CI: 1.09-1.38). Compared to patients who graduated from university, patients with less than a high school (HS) education and patients who graduated HS with some college tended to have elevated mortality (HR=1.41; 95% CI, 1.04-1.92 and HR=1.36; 95% CI: 1.02-1.82, respectively) but were not at risk for increased hospitalizations. Factors associated with unemployment included lower level of education, older age, female sex, longer vintage, and several comorbidities.

Conclusions: Employment and education status were inversely associated with mortality in patients on maintenance HD in Japan. Employment but not education was also inversely associated with hospitalizations. After adjustment for comorbidities, the associations with clinical outcomes tended to be stronger for employment than education status.