재활정책

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F)

질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

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Socioeconomic status and mortality after Parkinson's Disease : A nationwide matched cohort study

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Objective

Parkinson's disease (PD) is the second most common neurodegenerative disorder, placing a large burden of the health care system. However, very few studies investigated the role of socioeconomic status (SES) in relation to mortality in PD. Although it is known that lower SES is associated with increased mortality in the general population, few study have examined whether the impact of SES on mortality is modified by PD. Therefore, the objective of this study was to evaluate the mortality rate in PD using a large nationwide cohort in Korea, and to examine the impact of SES for mortality in individuals with and without PD.

Materials & Methods

The nationwide population-based matched cohort study was conducted using the Korean National Health Insurance Service cohort data. We selected patients with a primary diagnosis of Parkinson's disease (ICD-10 code: G21) and registration code for PD (V124) in the program for rare intractable diseases between 2002 and 2015. A matched cohort without PD was enrolled by randomly matching patients by sex, age, and year of diagnosis to the PD group with a ratio of 1:9. Cox proportional hazard models were used to identify risk factors associated with mortality using Hazard Ratios and 95% confidence intervals. We calculated the mortality rate using Kaplan-Meier method, and used the log-rank test to compare the survival distributions between the two groups. $P < 0.05$ was considered statistically significant. The statistical software SAS System for Windows, version 9.4 (SAS Institute Inc, Cary, NC) was used to perform the statistical analyses.

Results

In total, 33,060 participants were enrolled in the study: 3,306 in the PD cohort and 29,754 in the matched control cohort. During the follow up periods, mortality rate was 35.36% in PD cohort and 18.57% in the comparison cohort. After adjusting for co-variables, the Cox proportional regression model showed an adjusted hazard ratio (aHR) of 2.561 (95% CI, 2.395-2.738) for mortality in PD cohort. Log-rank test revealed a significantly higher rate

of mortality in PD cohort. According to residential areas, PD patients in metropolitan and rural revealed significantly increased aHRs of 1.219 (95% CI, 1.015-1.465) and 1.229 (95% CI, 1.047-1.442) compared to those of capital region, respectively. Medical aid group also showed increased mortality rate (aHR = 1.434, 95% CI, 1.131-1.817) compared to that of national health insurance group. There was no significant difference of mortality according to income level.

Conclusions

During the 12 year of follow-up periods, PD cohort showed almost doubled mortality rate compared to control cohort, after adjusting for potential confounders. Residential area such as metropolitan and rural and type of insurance were significantly associated with increased mortality in PD patients.