

Importance of Living with a Spouse for Female Patients Undergoing Hemodialysis

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Background: An increasing number of elderly people are living alone owing to the aging population, and patients undergoing hemodialysis are no exception. Generally, patients living alone have poor prognoses. However, the significance of living with a spouse for patients on hemodialysis has been unclear. Therefore, we aim to clarify such significance among Japanese patients undergoing hemodialysis.

Methods: After excluding patients with an unknown family structure, we included patients undergoing hemodialysis at Nagasaki Renal Center, Japan, during 2011 and 2012. Patients were followed up until 2021. Log-rank tests and multivariate Cox regression analyses were conducted to evaluate the patients' life prognosis. **Results:** We included 333 patients undergoing hemodialysis (mean age: 67.2 ± 13.3 years, 57% men, median dialysis vintage: 4.8 years). The proportion of those living with a spouse was 48%. The log-rank test for all patients showed that patients living with a spouse had a favorable prognosis compared with that of patients living alone ($P=0.008$). Notably, no significant difference was observed among male patients ($P=0.22$); however, a significant difference was detected among female patients ($P=0.004$). Even a patients' background adjusted multivariate Cox regression analysis showed that living with a spouse reduced the risk of death (hazard ratio: 0.74, 95% confidential interval: 0.56-0.98, $P=0.04$).

Conclusion: Living alone was associated with poor prognosis, especially in female patients undergoing hemodialysis. The precise reason for this remains unknown. However, patients on hemodialysis living alone should not be isolated from society to improve their prognosis.