Age, Sex, and the Association of Chronic Kidney Disease With All-Cause Mortality in Buddhist Priests: An Analysis of the Standardized Mortality Ratio from the Korean Buddhist Priests Cohort

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Objectives: Buddhist priests lead a unique lifestyle, practicing asceticism, with a vegetarian diet. Such behavior may have an impact on clinical outcomes. Hence, we explored the mortality among Korean Buddhist priests as compared with the general population.

Methods: This study is a single-center, retrospective study. Among the 3,867 Buddhist priests who visited Dongguk University Gyeongju Hospital between January 2000 and February 2016, 3,639 subjects who were available mortality data from Statistics Korea were enrolled. Standardized mortality ratio (SMR) was computed for all causes of death and compared with the general population using national statistics in Korea. Information regarding end stage renal disease (ESRD) was investigated from the Korean Society of Nephrology registry. Among the total 3,639 patients enrolled, the baseline laboratory results were obtained in 724 patients. Chronic kidney disease (CKD) was defined as dipstick proteinuria ≥1 or an estimated glomerular filtration rate <60 ml/min/1.73m².

Results: The mean age was 44.6±12.4 years, and 47.7% were male. During the follow-up period for 50.6±53.8 months, 152 (4.2%) patients died. During the follow-up period, 19 (0.5%) and 70 (1.9%) patients developed ESRD and urinary stone, respectively. The SMR for all causes of death was 0.33 (95% CI, 0.28-0.39; male: 0.33; 95% CI, 0.27-0.40; female: 0.34; 95% CI, 0.25-0.44). Among 724 patients, 74 (10.2%) patients had CKD. The SMR value for non-CKD patients (0.61, 95% CI 0.43-0.85) was significantly lower than the general population. Female (0.52, 95% CI0.28-0.87) and patients older than 50 years of age (0.74, 95% CI 0.55-0.98) had a significantly lower SMR. In the Cox proportional hazards model with adjustment, older age (adjusted HR 1.04, 95% CI 1.10-1.07) and presence of CKD (adjusted HR 2.55, 95% CI1.07-6.06) were independently associated with increased all-cause mortality.

Conclusions: Buddhist priests and especially Buddhist priests without CKD showed a significantly lower mortality compared with the general population.