KSN 2016 Abstract Submission

Dialysis

KSN2016ABS-1171

Sarcopenia is associated with mortality in peritoneal dialysis patients

Gyeongmin Jeong*[1], Yeon Hee Kim[1], Seok Hui Kang[1], Kyu Hyang Cho[1], Jong Won Park[1], Kyung Woo Yoon[1,1], Jun Young Do[1]

[1]Internal Medicine, Yeungnam University Hospital, Daegu, Korea, Republic Of

Background: Few studies have demonstrated an association between sarcopenia and mortality in peritoneal dialysis (PD) patients. The aim of the present study was to evaluate the clinical association between sarcopenia and all-cause or cardiovascular mortalities in PD patients.

Methods: We reviewed medical records collected at Yeungnam University Hospital, Korea, and identified all adults (> 18 years) who underwent PD between January 2001, and April 2014. Each appendicular lean mass (both upper and lower extremities) was measured using DXA. The sarcopenia index was calculated by dividing total appendicular lean mass (kg) by BMI (kg/m^2).

Results: A total of 631 patients were enrolled in the present study. The number of participants in the Normal and Sarcopenia groups was 328 and 303, respectively. Initial sarcopenia was positively associated with comorbidity index and inversely associated with RRF, edema index level, APD, and women. Cox regression analyses showed that hazard ratio (95% CI) in Sarcopenia group was 1.74 (1.35-2.24) in univariate ($P < 0.001$) and 1.71 (1.28-2.26) in multivariate ($P < 0.001$) compared with the Normal group. In addition, hazard ratio for 0.1 increase in sarcopenia index was 0.89 (0.84-0.95) in univariate ($P = 0.001$) and 0.84 (0.76-0.91) in multivariate ($P < 0.001$). Analyses using 1 year sarcopenia index showed similar trends with those from initial sarcopenia index.

Conclusion: Sarcopenia was found to be associated with all-cause and cardiovascular mortalities in incident PD patients. Hence, the presence of sarcopenia should be closely monitored and prevention of sarcopenia may be necessary to improve the prognosis in PD patients.

Keywords: all-cause mortality, dual-energy X-ray absorptiometry, peritoneal dialysis, sarcopenia