

Abstract Submission No. : 2141

Late stage 3 chronic kidney disease is an independent risk factor for sarcopenia, but not proteinuria

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Objectives: Most epidemiologic studies assessing the relationship between chronic kidney disease (CKD) and sarcopenia have been performed in dialysis patients. This study aimed to evaluate the relationship between estimated glomerular filtration rate (eGFR), proteinuria, and sarcopenia in patients with non-dialysis-dependent CKD.

Methods: A total of 892 outpatients who did not show any rapid changes in renal function were enrolled in this observational cohort study. We measured the muscle mass using bioimpedance analysis and handgrip strength (HGS), and sarcopenia was defined as low HGS and low muscle mass.

Results: Sarcopenia was found in 28.1% of the patients and its prevalence decreased as body mass index (BMI) increased; however, in patients with $BMI \geq 23 \text{ kg/m}^2$, the prevalence did not increase with BMI. As eGFR decreased, the lean tissue index and HGS significantly decreased. However, the eGFR did not affect the fat tissue index. The risk of sarcopenia increased approximately 1.6 times in patients with $eGFR < 45 \text{ mL/min/1.73 m}^2$. However, proteinuria was not associated with sarcopenia. With a decrease in eGFR, the lean muscle mass and muscle strength decreased, and the prevalence of sarcopenia increased.

Conclusions: In patients with late stage 3 CKD, further assessment of body composition and screening for sarcopenia may be needed.

Prevalence of sarcopenia



KSN 2021

FULLY VIRTUAL MEETING

 September 02 (Thu) - 05 (Sun)

