Prevalence of Sarcopenia and Its Relation to Body Composition, Physiological Function, and Nutritional Status in Community-dwelling Frail Elderly People

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Purpose: Patients with sarcopenia experience an impaired state of health with various comorbidities, including mobility disorders, increased risk of falls and fractures, impaired ability to perform activities of daily living, and other disabilities. The prevalence of sarcopenia differs with population, age, and gender. The aim of this study was to assess the prevalence of sarcopenia and its association with functional and nutritional status in community-dwelling frail elderly people.

Methods: Seventy-two community-dwelling frail elderly individuals (55 women) above the age of 75 years were included in the study. The European Working Group on Sarcopenia in Older People (EWGSOP) criteria were adopted. Accordingly, sarcopenia was diagnosed in cases with documented low muscle mass and either low muscle strength (grip strength) or low physical performance (short physical performance battery [SPPB]). We also assessed the participants’ nutritional status (Mini Nutritional Assessment Short Form [MNA-SF]), mental state (Mini Mental State Examination [MMSE]), and daily activities (Barthel Index [BI]).

Results: Sarcopenia was diagnosed in 27 participants (37.5%). MNA - SF score in elderly people with sarcopenia was significantly lower than that in those without sarcopenia. MMSE score were not significantly different between the participants with sarcopenia and those without sarcopenia. The multivariate logistic regression analysis showed a high increase in risk of sarcopenia for malnutrition (OR 5.94; 95% CI 1.62-21.81).

Conclusions: The prevalence of sarcopenia was high in community-dwelling frail elderly people. Sarcopenia was associated with low nutritional status but not with cognitive status.