

Sarcopenia and its Association with Function and Mobility in Acute Decompensated Heart Failure: A Preliminary Study

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ABSTRACT

Introduction: Heart Failure (HF) is known to hasten muscle wasting, leading to sarcopenia, which is also associated with an increased risk of morbidity and mortality. The implication of sarcopenia on function as well as mobility in acute decompensated heart failure (ADHF) patients is yet to be determined. We aimed to assess sarcopenia and its association with function and mobility in individuals with ADHF.

Methods: We recruited ADHF in-patients (diagnosed ≥ 1 year) as per Framingham criteria, falling between New York Heart Association (NYHA) class II – IV. Sarcopenia was defined as per the European Working Group on Sarcopenia in Older People 2 (EWGSOP2) algorithm. Other outcomes assessed included Mobility Disability Scale (MDS), Fried frailty index and 6 Minute Walk Test (6MWT). Descriptive statistics were used to report demographic data. Continuous data was represented as mean and standard deviations and categorical data using frequencies and percentages.

Results: A total of 8 participants (6 men) with ADHF were included. 62.5% (5/8) of the participants were found to have sarcopenia (Mean Strength, Assistance with walking, Rise from a chair, Climb stairs and Falls (SARC-F) questionnaire score: Sarcopenics=4.8 vs Non sarcopenics=1). They were also found to have lower skeletal muscle mass (%) (21.82 ± 5.41 vs 27.33 ± 0.97), six minute walk distance (176.7 ± 94.76 m vs. 347 ± 92.7 m), more frail (Mean Fried frailty criteria: 3.6 vs 2) and greater mobility disability (37.8 ± 12.02 Vs. 23 ± 10.53) than those without sarcopenia.

Conclusion: Our study found sarcopenia to be frequently observed (62.5%) in ADHF participants. Those with sarcopenia demonstrated reduced functional capacity, greater frailty and increased mobility disability as compared to non sarcopenics. Larger studies are required to clearly determine the association that could exist.

Keywords: Heart Failure, Sarcopenia, NYHA

