



Prevalence of Sarcopenia in a Group of Middle Aged Women from Galle, Sri Lanka

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Abstract

Sarcopenia is a syndrome characterized by progressive loss of muscle mass, muscle strength and physical performance. Relative appendicular skeletal muscle mass index (RSMI), hand grip strength (HGS) and gait speed (GS) are the established measures of sarcopenia correspond to muscle mass, muscle strength and physical performances. This cross sectional study was aimed to evaluate the prevalence of low muscle mass, muscle strength, physical performance, sarcopenia, its severities and sarcopenic obesity in a group of healthy middle-aged women selected from Galle, Sri Lanka. Randomly selected 270 community dwelling women aged 41.0-60.0 years were studied. Appendicular skeletal muscle mass (ASMM=sum of skeletal muscle mass of all four limbs in kg) and fat mass (kg) were determined by DXA scan. ASMM adjusted for height (ASMM/height square) was referred as RSMI (kg/m²). HGS (kg) and GS (m/s) were measured and fat percentage was calculated. Prevalence of low muscle mass, muscle strength, physical performance, pre-sarcopenia, sarcopenia, severe sarcopenia and sarcopenic obesity were determined using cutoff values obtained from previous studies. Mean(±SD) age of the participants was 52.2(±5.84) years. Out of 270 study participants 166 (61%) were postmenopausal and mean (±SD) age of menopause was 48.25(±3.98) years. Overall group prevalence of low RSMI, HGS and GS were respectively 5.9%, 10.4% and 15.9%. Prevalence of pre-sarcopenia, sarcopenia, severe-sarcopenia and sarcopenic obesity was observed; overall group – 3.0%, 2.2%, 0.7% and 3.0%, postmenopausal women – 4.2%, 3.0%, 1.2% and 4.2% and premenopausal women – 1.0%, 1.0%, 0.0%, and 1.0%. Prevalence of these sarcopenic conditions was higher among women in 51-55 years age group (5.7%, 4.3%, 2.9%, 7.1%) compared to other age groups while women in group 41-45 years did not have any of above sarcopenic conditions. This study revealed a reasonable prevalence of sarcopenia among healthy community dwelling middle-aged women and menopause play a significant role in increasing of prevalence.

Key words: Middle aged women, Prevalence, Sarcopenia, Sri Lanka

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