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**Prevalence and Factors Associated with Sarcopenia in Hong Kong Chinese Population: a Cross-Sectional Study**

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**Introduction**

Sarcopenia, an age-related loss of muscle associating with increased risk of fall incident, has become a public health issue in western population. Little is known about prevalence of and factors associated with sarcopenia among Hong Kong Chinese population.

**Objectives**

This study aimed to investigate the prevalence of sarcopenia in community-dwelling Hong Kong Chinese population and examine its associated factors.

**Methodology**

218 community-dwelling population aged over 40 were recruited. Standardized measures of muscle mass, handgrip strength, and a timed 4-meter walk were examined according to European Working Group on Sarcopenia in Older People guideline. SARC-F was administered to detect persons at risk for adverse outcomes from sarcopenia. Participants also completed validated measures of physical activity level, exercise self-efficacy and psychological well-being.

**Result**

Muscle mass, reflected by Mean appendicular skeletal mass/height<sup>2</sup> (ASM/ht<sup>2</sup>), was 5.67±0.67 and 4.62±0.51 kg/m<sup>2</sup> in men and women, respectively. 209 (95.9%) and 127 (58.3%) of participants showed low levels of muscle mass and muscle strength, respectively. According to cut-off points recommended by Asian Working Group for Sarcopenia, the prevalence of pre-sarcopenia, sarcopenia, and severe sarcopenia was 36.24%, 59.17%, and 0.64%, respectively. Obese subjects and those with a history of diabetes and hypertension were prone to develop sarcopenia (60%, 75.8%, and 65.7%, respectively). Obese patients showed a higher risk of sarcopenia [odds ratio (OR): 10.889, 95% confidential interval (CI): 1.303, 90.981]; patients with

hypertension exhibited significantly increased risk of pre-sarcopenia (OR: 6.778, 95% CI: 1.539, 29.842). Results of multiple regression showed that sarcopenia was more prevalent among female ( $p= 0.026$ ) and those with inadequate physical activity ( $p= 0.008$ ). Sarcopenia is highly prevalent in Hong Kong Chinese population and is closely associated with gender, physical inactivity, obesity, and a history of hypertension and diabetes. Timely health promotion interventions are needed to prevent and treat sarcopenia for at-risk and sarcopenic population.