Abstract

Project Code : MRG6280135

Project Title: Sarcopenia and its relationships with cardiorespiratory fitness, physical activity, cognition and depression in
community-dwelling older people

Investigator : Assoc. Prof. Kornanong Yuenyongchaiwat, Ph.D., Thammasat University

E-mail Address : ykornano@tu.ac.th

Project Period : 12 months

Age-related sarcopenia is associated with physical declines including poor functional capacity, risk of falls, problems with activities daily life and disabilities. The study explores the sarcopenia in community-dwelling elderly people in term of cardiorespiratory fitness, physical activity, cognitive performance, and depression and its adverse outcomes. Method: A total of 330 elderly participants were enrolled in the community-dwelling. Based upon the definition of sarcopain from Asian Working Group for Sarcopenia, gait speed, muscle mass and hand grip were assessed. All participants were required to perform the 6-minute walk test, respiratory muscle strength, and completed a set of questionnaires (e.g., Global Physical Activity Questionnaire, Thai version of The Montreal Cognitive Assessment, and Thai Geriatric Depression Scale). A logistic regression analysis and multivariate logistic regression were used to determine independent predictors for sarcopenia. Results: Overall, 330 (66.85±5.54 years, 67.3% females) were recruited and 16.1% were defined as sarcopenia. In addition, sarcopenia were associated with advanced age, low cardio-respiratory fitness (i.e., respiratory muscle strength and 6-minute walk distance), low physical activity, low cognitive performance and high depression than those non-sarcopenic elderly. Further, an advanced age (i.e., mean age > 70 years; OR 4.67), low physical activity (OR 2.5), low cognitive performance (OR 9.56) and high depression scores (OR 2.34) were significant association of risks factor for sarcopenic elderly. These relationships were independently associated with the risks of sarcopenia after adjusted for age and sex. Conclusion: Older people with sarcopenai had adverse health outcomes (i.e., low cardio-respiratory fitness, poor cognitive performance, low physical activity and depression symptoms. It appears that much of the

association with the prevalence of sarcopenia can be prevented behavioral modification such as improved physical activity or exercise.

Keywords : sarcopenia, elderly people, cardio-respiratory, physical activity, depression