

งานประชุมวิชาการสมาคมพฒณาวิทยาและเวชศาสตร์ผู้สูงอายุไทย ประจำปี พ.ศ. 2563
เรื่อง Integrated Health and Social core for Longevity

Received: 2 February 2020
Revised: 11 March 2020
Accepted: 12 March 2020

Association of sarcopenia and vitamin D status in older adults from tertiary care level geriatric outpatient unit

Thongchai Sawatmongkonkun*, Orapitchaya Krairit*, Daruneewan Warodomwicht**

*Division of Geriatric Medicine, Department of Internal Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

**Division of Nutrition and Biochemical Medicine, Department of Internal Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

Objectives: Sarcopenia is a condition of a patient who has low of muscle strength and low muscle quantity or quality. Sarcopenia is a common age-related condition leading to health problems in the older adults. Previous in vitro study revealed the association of low serum 25(OH)D with decreased vitamin D receptor (VDR) for muscle proliferation and differentiation. However, several studies of sarcopenia and low vitamin D status in older adults have unconcluded results. Our study aim to find the correlation between sarcopenia and vitamin D status in older adults from tertiary care level geriatric outpatient setting.

Materials and methods: We conducted a cohort study in patients age 65 years and over from outpatient older adults aged 65 year and over from outpatient geriatric clinic at the Ramathibodi Hospital. Who had low serum 25(OH)D result within 90 days, and normal serum 25(OH)D within 1 year prior to the study date were included. The primary endpoint was association between sarcopenia and vitamin D status. Sarcopenia was defined by the 2018 second European Working Group on Sarcopenia in Older People (EWGSOP2) using low grip strength (for men <27 kg, and women < 16 kg) and low muscle quantity by skeletal muscle index (SMI) (for men <7.0 kg/m², and for women <5.5 kg/m²). Low vitamin D was defined as vitamin D insufficiency (serum 25(OH)D < 30 ng/dL) and deficiency (serum 25(OH)D < 20 ng/dL)

Results: 255 participants were included in our study. The prevalence of sarcopenia was 34.5%. The prevalence of low vitamin D was 19.6%. The prevalence sarcopenia together with low vitamin D were found at 7.8%. Sarcopenia was not related to low vitamin D level ($p = 0.400$). However, sarcopenia was associated with advance age, male sex, history of previous stroke and dementia. It was also found to be associated with lower BMI, serum albumin and reduced glomerular filtration rate (GFR).

Conclusion: Sarcopenia in older adults was not correlated with low serum vitamin D in this study. However, current study had some limitation due to the small members of participants with low vitamin D.

Keywords: Sarcopenia, low vitamin D, elderly, older adults, associated factors