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Background:

Sarcopenia is one of risk factors for prevalence of chronic diseases which is associated with aging. Distribution of sarcopenia in Korea is important because Korea is one of the most rapid countries in population aging. This study aimed to understand trends in PA in elderly Koreans (≥ 65 years of age) and identify the proportion of sarcopenia in elderly Koreans based on a reference cutoff value of handgrip strength (28.6kg for men and 16.4kg for women).

Methods:

This study was performed using data from Korea National Health and Nutrition Examination Survey (KNHANES) between 2007-2017. Physical activity on walking (2007-2017), aerobic exercise (2014-2017), and muscle strength (2007-2017) were analyzed to understand trends of physical activity participation in elderly Koreans. Furthermore, using handgrip strength data from KNHANES (2014-2017), the study examined how sarcopenia has distributed in elderly in Korea.

Results:

The proportion of elderly Koreans engaged in walking decreased from 46.8% (age standardized) in 2007 to 35.7% in 2017, and the proportion of elderly Koreans engaged in aerobic exercise decreased 41.1% in 2014 to 29.4% in 2017. Even though, the proportion of elderly Koreans engaged in muscle strength increased from 11.6% in 2007 to 17.5% in 2017, the proportion of sarcopenia in elderly men increased from 22.6% in 2014 to 29.3% in 2017 and the proportion of sarcopenia in elderly women increased from 19.3% in 2014 to 30.1% in 2017.

Conclusions:

During the past 10 years, the participation in muscle strength has increased, while the participation in walking and aerobic exercise has decreased in elderly Koreans. Nevertheless, the proportion of sarcopenia in elderly Koreans has increased. This analysis provides evidence of necessity of public health efforts to implement sarcopenia reduction interventions and examine the correlation between sarcopenia and physical activity pattern in elderly Koreans.

Key messages:

- Although the participation of physical activity has decreased, the participation of muscle strength has increased in elderly Koreans (≥ 65 years of age).
- The increased proportion of sarcopenia in elderly Koreans showed the necessity of new public health intervention to reduce sarcopenia in spite of growing trends of muscle strength in elderly Koreans.

Trends of sarcopenia and physical activity in elderly Koreans using KNHANES 2007-2017

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