

54. Mini nutritional assessment, functional capacity, and ankle-brachial pressure index and in community-dwelling elderly people in Kuroshio city, rural Japan

Basilua Andre Muzembo¹⁾, Dumavibhat Narongpon¹⁾, N'landu Roger Ngatu¹⁾, Tomomi Matsui¹⁾, Masamitsu Eitoku¹⁾, Ryoji Hirota¹⁾, Yasunori Nagano²⁾ and Narufumi Suganuma¹⁾

¹⁾Division of Social Medicine, Department of Environmental Medicine, Kochi Medical School, Kochi University,

²⁾Department of Orthopedics, Kochi Medical School, Kochi University

Background

A low ankle-brachial pressure index (an ABPI value <0.9) is considered predictive of cardiovascular disease, and is widely thought to increase morbidity and mortality in the elderly. However, good nutrition is beneficial both for the health and the ability to resist and recover from the disease. Activities of daily living and instrumental activities of daily living reliably identifies dependent elderly, and assessment of functional capacity is a key element in geriatric health as it can help in identifying what services or programs are needed for the elderly.

Objective

To assess the nutritional status by the mini nutritional assessment (MNA) short form, the functional capacity, and the ankle-brachial pressure index of the elderly in Kuroshio city.

Methods

It was a cross-sectional study in which a total of 100 elderly, both males and females, were screened for ankle-brachial pressure index (ABPI), nutritional status, activities of daily living, gait speed, postural stability, and functional mobility. Their lifestyle was also analyzed through a questionnaire.

Results

The ABPI was statistically higher in well nourished participants compared with those at risk of malnutrition or the malnourished. The mean ABPI of the participants was 1.08 ± 0.1 , and three participants had an ABPI lower than 0.90. The mean ABPI was significantly higher in non-smokers compared with former smokers. The ABPI was found to correlate negatively with gait speed and with TUG score; $P=0.01$). Multiple regression analysis showed that the ABPI was negatively associated with smoking, and positively associated with nutritional status and functional mobility in all the participants.

Conclusion

Results from the present study show that the MNA (short form) has the potential of predicting the risk of peripheral arterial disease among elderly persons.