

研究業績 英文表記

和文	
表題	日本人地域在住高齢者における認知機能と全身持久力および身体活動との関連
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英文	
Title	Association between cardiorespiratory fitness, physical activity, and cognitive function in Japanese community-dwelling elderly adults
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Abstract	<p>We investigated factors correlated with cognitive decline in elderly adults by measuring aerobic fitness, physical activity, and cognitive function. Participants were community-dwelling adults aged 65 years or older (N = 455; 130 men and 325 women). Aerobic fitness was assessed in an incremental exercise test using a cycle ergometer; physical activity was determined with step counts using a uniaxial accelerometer. Cognitive function was examined using Urakami's screening test for Alzheimer's disease (AD). We analyzed the results for 287 participants (71 men and 216 women) with no missing data. The maximum possible score for cognitive function was 15; impairment was defined as scores of ≤ 12. The χ^2 and t-test were used to compare data between participants with impairment and controls. Male and female participants were analyzed separately. After adjusting for age, BMI, and diabetes, we performed analysis of covariance. Of the total, 29 participants (10.1%) were categorized as impaired on screening. For aerobic fitness and physical activity, there were no significant differences between men with impairment and controls. However, aerobic fitness was significantly lower ($p < 0.002$) and physical activity was not significantly different for women with impairment than for controls by t-test. After adjustment, significant differences were also found for aerobic fitness ($p < 0.001$) between the groups in women. The impairment group had a significantly higher ratio of women with diabetes than the control group ($p < 0.05$). Our results suggest that decline in aerobic fitness is obviously associated with decline in cognitive function among women.</p>
keyword	Cognitive function, Aerobic fitness, Step counts, Community-dwelling elderly adults