

O-0304**The relationships between visual and physical functions in community-dwelling healthy elderly men**

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【Purpose】 The purpose of this study was to investigate the relationships between visual and physical functions in community-dwelling healthy elderly.

【Methods】 Eighty-nine men subjects of 55 years and older (the average age was 69.7 ± 8.2) participated in this study. The visual function assessment included static visual acuity (SVA), kinetic visual acuity (KVA), dynamic visual acuity (DVA), depth perception (DP), ocular motor skill (OMS), visual reaction time (VRT), and Eye/Hand Coordination (E/H). The physical functions measures such as walking ability (Ten-meter Timed Walk), balance functions (Timed Up and Go Test, Functional Reach Test, One-leg Standing Duration with and without vision), moreover, and the measurements of the total trace head, the circumference area with the center of gravity unrest meter. We evaluated the correlation between visual functions and physical functions by using Pearson product-moment correlation coefficient. Statistical significance was accepted at the level of $P < 0.05$.

【Results】 The all assessments of visual and physical functions decreased by age-dependent, especially, the performance in the E/H and One-leg Standing Duration with vision significantly decreased with depending on the age ($r = -0.686$, $p < 0.0001$, or $r = -0.486$, $p < 0.0001$), however, we could not find the relation between OMS and age ($r = -0.047$, $p = 0.659$). Although there was a strong relationship between visual acuity and walking ability and balance functions, there was not significantly relation between OMS and physical functions.

【Discussion】 It was suggested that there were little relations between visual (exclude OMS) and physical functions in community-dwelling healthy elderly men, and there are also strong relationships between age and these functions. Vision is an important prerequisite for balance control and mobility. Our study provides that poor functional vision is related to weaker balance and mobility performance in community-dwelling older adults.