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The relationship between functional age and cognitive level in the Japanese elderly

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INTRODUCTION：

The relationship between cognitive decline and functional age level has been reported previously. However, these relationships could not be used as everyday clinical decision making tools.

OBJECTIVE：

This study attempted to fine the hidden relationships between the cognitive screening examination and estimated functional age levels, by observing the activities of daily living (ADL).

METHOD：

The subjects included 182 people 60 years old and over who attended facilities for the aged, such as day care centers or nursing homes. Mini-Mental-State Examination (MMSE) was used to estimate the cognitive level. Cognitive levels were classified into four groups, normal, subnormal, moderate dementia, severe dementia. Functional age level was determined by observing the highest ADL level. ADL evaluation was based on the child development order. To analyze the relation ships between cognitive level and functional age level, Peason's correlation coefficient test and simple regression analysis, were used.

RESULTS：

A very high correlation was found between the MMSE score and functional age (ρ=.998, $p < .001$). The relationships between two variables can be simply expressed as follows.

Functional age level(year)＝0.25×(MMSE score)＋0.05, MMSE(score)= 4.01×(Functional age)－0.06.

CONCLUSION：

Simple relationships between cognitive level and functional age level were found, that is cognitive decline and functional age(ADL function) decline have a high correlation.

CONTRIBUTION TO THE PRACTICE OF OCCUPATIONAL THERAPY：

Both easy clinical standard assessments, MMSE and ADL function observation, can be used to predict each other. Therefore, occupational therapy goal setting can be easily done to meet realistic functional levels by using cognitive information.