The Performance Pattern of Normal Illiterate and Patients with Early Alzheimer's Disease on the Semantic Association of Verbal Fluency Test

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Very low level of education, particularly illiterate has been as a confounding effect and raised false-positive diagnostic errors for AD based on the inappropriate cutoff points of mental status screening tests. The current study was to examine the usefulness of the verbal fluency test in differentiating normal versus incipient dementia, as well as to clarify the issue of whether memory dysfunction contributes to defective performance on the verbal fluency test. Methods: Ninety-four subjects were recruited and classified into four groups, normal educated control, normal illiterate, questionable AD（qAD）and mild AD（mAD）. All subjects received the Clinical Dementia Rating, the Cognitive Abilities Screening Instrument, and verbal fluency test. Results: No significant differences between normal illiterate and normal educated control groups on the verbal fluency test were noted. However, demented patients were impaired in performing the verbal fluency test. Performance differences between AD patients and normal educated control subjects on the vegetable fluency and four-legged animal fluency test could not be attributed to memory impairment. Conclusion: Based on the present result, it appears that the verbal fluency test might be useful for differentiating normal illiterate from incipient dementia. Meanwhile, the result also suggests that deficits of vegetable fluency and four-legged animal fluency observed in the early AD patients might be merely due to executive dysfunction.

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