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CLINICAL UTILITY OF COLOR–FORM NAMING IN ALZHEIMER'S DISEASE: PRELIMINARY EVIDENCE[1]

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Summary.—Performances on Alzheimer's Quick Test color–form naming and Mini-Mental State Examination were compared for 38 adults with Alzheimer's disease and 38 age- and sex-matched normal controls. Group means differed significantly and indicated longer naming times by adults with Alzheimer's disease. The specificity for AQT color–form naming was 97% and sensitivity 97%, i.e., 3% false negatives. The specificity for Mini-Mental State Examination was 100% and sensitivity 84%, i.e., 16% false negatives. These findings, while supporting AQT color–form naming as a screening test for reductions in cognitive speed associated with Alzheimer's disease, are preliminary given the relatively small sample.

Aberration of memory for content is abnormal and recognizable in Alzheimer's disease. Tests of cognitive content, such as the Mini-Mental State Examination (8) are therefore useful for identifying established dementia and differentiating it from the normal state (2); however, Alzheimer's disease has a preclinical phase with memory loss and the onset of symptoms may go unrecognized by the patient, family, and physician (3, 9, 11). Pharmacological advances in medication for mild-to-moderate Alzheimer's disease make the search for sensitive, noninvasive behavioral measures to identify mild cognitive impairment and early-stage Alzheimer's disease an obvious priority (2, 4, 5, 13, 16).

Previous studies with Alzheimer's Quick Test: Color–Form Naming (20) explored the effects of age on color, form and color–form naming times in adults and established a minimal increase with age (1 sec./decade) (12, 19). In this study, we compared the specificity and sensitivity of AQT-Color–Form Naming (20) and Mini-Mental State Examination, an established content screening test for Alzheimer's disease (8, 15). AQT-Color–Form measures cognitive speed, including reaction and response time, with repeated dual-dimension stimuli (color–form combinations) and is sensitive to small increases in performance time (12).

AQT-Color–Form has been validated with functional brain imaging (18,

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