Universität Basel

Publication

Assessment of everyday behavior in Alzheimer's disease patients : its significance for diagnostics and prediction of disease progression

In addition to cognitive decline, current diagnostic criteria for Alzheimer's disease (AD) require evidence of impaired social and/or occupational functioning. The Nurses' Observation Scale for Geriatric Patients (NOSGER) is used to rate the frequency of disturbances in everyday behaviors and, although not specifically developed for this purpose, is often applied for diagnostic purposes. The NOSGER assesses six dimensions: Memory, Instrumental Activities of Daily Living (IADLs), Self-Care (ADL), Mood, Social Behavior, and Disturbing Behavior. The goals of this study were 1) to establish normative data for the NOSGER as a function of demographic variables (i.e., age, years of education, and gender) in healthy elderly subjects; 2) to obtain cutoff values distinguishing healthy elderly subjects from probable AD patients with mild dementia; and 3) to describe the natural course of behavioral changes occurring in mild AD according to the NOSGER dimensions. NOSGER data of 445 normal controls [NCs, 376 men, 69 women; Mini-Mental Status Examination (MMSE) = 28.8 +/- 1.17] and 217 probable AD patients with mild dementia (97 men, 120 women; MMSE = 26.1 +/- 1.59) from the Memory Clinic of Basel, Switzerland, were analyzed. Cutoff scores for distinguishing between average NCs and mildly demented AD patients ranged between 7 and 9 for different NOSGER dimensions. Formulae to obtain demographically adjusted and z-transformed NOSGER dimension and MMSE scores for assessment of individual cases were determined. NCs were best distinguished from patients in the NOSGER dimension Mood, followed by Memory, ADLs, Social Behavior, and Disturbing Behavior. Linear courses of behavioral deterioration were found-in four NOSGER dimensions (Memory, IADLs, Mood, and Social Behavior) in these mildly demented patients. No quadratic course was found for any of the NOSGER dimensions. The NOSGER revealed good discriminatory power in those behavioral dimensions affected in early stages of AD and is suitable for monitoring behavioral changes as a function of disease progression. Its use in combination with the MMSE for dementia screening purposes is recommended.

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