Declining Medical Decision-Making Capacity in Mild AD: A Two-Year Longitudinal Study.

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Abstract

This is a report of a two-year longitudinal study comparing healthy older adult subjects (n = 15) and mild Alzheimer's disease (AD) patients (n = 20) using an objective performance measure of medical decision-making capacity (MDC). Capacity to consent to medical treatment was measured using the Capacity to Consent to Treatment Instrument (CCTI). The CCTI is a psychometric measure that tests MDC using a series of four core capacity standards: S1 (evidencing/communicating choice), S3 (appreciating consequences), S4 (providing rational reasons), and S5 (understanding treatment situation), and one experimental standard [S2] (making the reasonable treatment choice). For each standard, mild AD patients were assigned one of three capacity outcomes (capable, marginally capable, or incapable) based on cut-off scores derived from control group performance. At baseline, mild AD patients performed equivalently with controls on simple standards of evidencing a choice (S1) and making the reasonable choice ([S2]), but significantly below controls on complex standards of appreciation, reasoning, and understanding (S3, S4, and S5) (p<0.02). Control performance was stable over time on all capacity standards. At one-year follow-up, the mild AD group did not show significant decline from baseline on any capacity standard. However, at two-year follow-up the mild AD group showed significant declines from baseline on the three complex standards (S3, S4, and S5) (p<0.02), and a trend on one of the simple standards (S1). Over the two-year period, the proportion of marginally capable and incapable outcomes in the AD group increased substantially for four of the five standards (S1, S3, S4, and S5). Performance on [S2] remained stable over time in the AD group. We conclude that mild AD patients have impaired MDC at baseline, and demonstrate significant additional decline on complex consent abilities of appreciation, reasoning, and understanding over a two-year period. AD patients also show emerging impairment on the simple consent ability of evidencing choice at two-year follow-up. Capacity outcome data reflect similar declines over time for these four consent standards. The findings suggest the value of early assessment and regular monitoring at two-year intervals of MDC in patients with mild AD.