

Predictors of survival in the early phase of Semantic Dementia

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Backgrounds: Semantic dementia (SD) is the syndrome of the Frontotemporal lobar degeneration spectrum with the longest mean survival. However, predictors influencing survival in SD patients yet remain elusive. This study aimed to identify relevant prognostic factors that might help predict survival in SD patients.

Methods: We conducted a survival analysis in a series of 42 patients assessed in the University Hospital of Rennes for both survival without institutionalization (time from diagnosis to care home admission or death) and absolute survival. Using Cox proportional hazards models, we identified the association between clinical, neuropsychological, radiological features and survival.

Results: The mean survival time without institutionalization was 6.00 years (± 3.8), and the mean absolute survival time 8,16 years (± 4.01). A higher behavioural disorder score at baseline and an older age at diagnosis were associated with a shorter survival without institutionalization (respectively [HR=2.28, p=0.007] and [HR=1.08, p=0.0179]) and a shorter absolute survival (respectively ([HR=4.22, p= 0.006] and [HR= 1.32, p=0.0002])). A more pronounced left anterior temporal lobe atrophy at baseline had a better prognosis for absolute survival [HR=0.19, p=0.0015] and for survival without institutionalization at 5 years [HR=0.51, p=0.0385]. A lower verbal semantic deficit was only associated with a longer absolute survival [HR=0.91, p=0.0004], so was the female gender [HR=0.15, p=0.0057].

Conclusion: Our findings provide clinically relevant predictors for survival in SD patients. We believe these results might assist clinicians for individualised prognostication in this rare syndrome.

Conflicts of interest

N/A