

Supplementary Table e-1. Clinical Presentation and Course of Disease

Study Participant #	Clinical Presentation
1	<p>At visit 1, this 58-year-old woman scored within the normal range on tests of memory, visuospatial constructions and executive attention. Despite word-finding pauses in conversation, naming ability was normal. Her spouse did not report changes in behavior although the patient endorsed symptoms of depression related to her awareness of illness. Activities of daily living were entirely normal. Over time, depression and emotional lability persisted. She became restless and would wander from her home. At the last examination, there were no abnormal findings on the sensorimotor examination.</p>
2	<p>Despite significant symptoms of agrammatism in writing and conversation, this patient was able to name normally and also to spontaneously recall 14/15 words she had previously learned. Story recall was normal as was her ability to copy simple designs. There were no early personality changes reported by her family or motor symptoms on initial neurological examination. She was independent in daily living activities, including living alone and driving. However, over time, she developed impulsive behavior and agitation. When her sister talked with her about considering assisted living, she packed her belongings, took money from her ATM and was about to leave when her sister happened to find her at home. Behavioral symptoms progressed to restlessness but she also became increasingly apathetic. She developed gait difficulties as her illness progressed.</p>
3	<p>At his first visit, this participant had no difficulty on tests of attention and constructions. However, naming was severely impaired and, as a consequence, he also scored poorly on tests of verbal memory. In contrast, nonverbal recall (designs) was normal and activities of daily living were preserved, including driving and flying his own plane. There were no significant motor findings early in the course of illness or at later examinations. Significant behavioral symptoms, including agitation and aggression, however, emerged mid-course and escalated over time. After he had been institutionalized, he engaged in self-mutilation.</p>
4	<p>This patient was previously reported but there were no neuropsychological scores available¹⁵. On initial examination, speech fluency was decreased while memory, personality and daily living activities were preserved. She had a right hand tremor that, over time, progressed to clumsiness and right-sided rigidity in arm and leg. She began to experience personality changes later in the course of her illness.</p>

Supplementary Table e-2. Cognitive and Behavioral Assessment

Initial Visit Assessment	Participant 1	Participant 2	Participant 3
MMSE (1-30)	29	30	26
CDR Global (0-3)	0.5	0.5	0.5
CDR Behavior (0-3)	0.0	0.0	ND
Trail Making A (time in seconds)	35	25	37
Trail Making B (time in seconds)	180	57	107
Boston Naming Test (0-60)	51	57	9*
RAVLT Delay (0-15)	ND	14	ND
CERAD List Recall (0-10)	7 (10 MC)	ND	4* (10 MC)
WMS-R Logical Memory Recall (0-25)	ND	13	4*
CERAD Constructions (0-11)	11	11	11
GDS (1-30)	9	1	22*
Early Personality Change	No	No	Yes
Behavioral Symptoms Over Time	Yes	Yes	Yes
Early Motor Symptoms	No	No	No
Motor Symptoms Over Time	No	Yes	No

MMSE – Mini Mental State Examination; CDR - Clinical Dementia Rating; RAVLT – Rey Auditory Verbal Learning Test; CERAD – Consortium to Establish a Registry for Alzheimer’s Disease; GDS – Geriatric Depression Scale; WMS-R – Wechsler Memory Scale Revised; MC – Multiple Choice Recognition; ND – Not Done; * Scores abnormal for age. Age at initial visit: Participant 1 – 58 years; Participant 2 – 52 years; Participant 3 – 57 years. No neuropsychological scores were available for Participant 4