

S1 Table 1 Psychological and cognitive investigation, findings and correlations

<i>Reference</i>	Cognitive, Psychological measures	Cognition/Psy findings
Mantovan et al., 2006	Cognitive assessment, Language, Memory, Calculations, RT for Finger tapping, Attention/Information Processing/Planning, Implicit Learning Task, Personality	Normal cognitive assessment. Impaired: mean verbal fluency, short-term verbal memory, visual memory, slower at movement programming, poor learning capacity. Personality: increased irritability, poor impulsive control, blunting of affect, poor self-portraying.
Ginestroni et al., 2012	none	n.a.
Akhalaghi et al., 2012	BDI: FRDA 7±7.9, HC 3.7±4.7	No differences in BDI intergroup.
Georgiou-Karistianis et al., 2012	BDI: 7±7.9 FRDA vs 3.7±4.7 HC, NART cognitive assessment score 117.1±3.1 FRDA vs 121.5±2.6 HC	Pre-morbid cognitive assessment in FRDA. Greater Simon effect difference (incongruent minus congruent) in FRDA vs HC.
Stefanescu et al., 2015	none	n.a.
Dogan et al., 2016	HADS: FRDA 10.2 ± 6.28, HC 6.27 ± 4.71	Impaired phonemic and semantic verbal fluency, working memory, attention and social cognition. Social cognition deficit.
Harding et al., 2016	BDI, N-Back Task (RT magnitude, RT variance, accuracy), NART	HC: Task performance and rIPFC activations in cerebral cortex correlated for SD and RT, anterior insula for SD and trending to significance for RT, more variable and/or poorer task performance. Task-related cerebello-insular dynamic connectivity in L hemisphere correlated to behavioral variance in HC only.
Harding et al., 2017	Motor performance measures. Offline motor behavior speeded motor performance and paced motor precision	n.a.
Cocozza et al., 2018	Language, cognitive assessment, Executive, memory, visuoperception/visuospatial functions.	Poor performance on MOCA. No language impairment. Except verbal working memory and categorization, FRDA performed worse than HC in tests assessing executive and attentive abilities.
Vavla et al., 2018	cognitive assessment tests	Cognitive assessment in FRDA normal in 13 (out of 19), IDD in 2, borderline in 4. Non harmonic cognitive assessment profile.
Shishegar et al., 2020	Digit span forward/backward tests, Hayling's sentence completion test, Stroop, TMTA/B.	Executive functions (Stroop): FRDA worse than HC, Attentive functions: FRDA worse at f-up.
Vavla et al., 2020	none	n.a.