

Later Life Neuropsychiatric Concomitants of Developmental Right Hemisphere Dysfunction

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Objective: To investigate the psychiatric history and current emotional functioning of adults with life long symptoms of right hemisphere dysfunction.

Background: Children and young adults with right hemisphere dysfunction commonly exhibit social withdrawal/depression (Weintraub and Mesulam, 1983). Whether emotional adjustment problems persist into mid- or late adult life is unknown.

Design/Methods: Retrospective case record analysis of adults assessed by protocol at an outpatient behavioral neurology facility sensitive to developmental factors referred for attention, mood or general neurologic symptoms. Evaluation included: developmental/school/medical/psychiatric history; family history; quantitative neurologic examination; psychoeducational assessment (IQ, academic skill level); Rey-Osterrieth complex figure (R-O); letter cancellation test (LCT); auditory verbal learning test; pupillometry; EEG; N-100/P-300 evoked potentials; Minnesota Multiphasic Personality Inventory. Designation of right hemisphere dysfunction was based on school history of underachievement in arithmetic and/or geometry confirmed by psychoeducational studies; full scale IQ >90; LCT L > R errors and/or impaired R-O visual spatial memory; slowed L limb timed alternate motion rate and/or balance.

Results: Five men and women aged 39-74 years (mean 55), two left-handed, eight with BA or more degrees met selection criteria. Mean VIQ 118, PIQ 92, all with low perceptual organization factor and arithmetic standard scores > 10 points below expectancy. Three had surviving parent retrospective Achenbach CBCL hyperactivity T score > 70. Five awkward motor development. History of perinatal stress – 1; head trauma/seizure – 0; 3 grossly nl MRI, 3 nl CT. Family history: three learning disability, five ADHD, six alcoholism, five depression, four daytime hypersomnia. Personal psychiatric history: two alcoholism, one bulimia, two depression, two anxiety. MMPI: Nine depression, eight obsessive worry.

Conclusions: From a referral biased sample, right hemisphere dysfunction even late in life is associated with an increased risk for emotional disturbance. Whether more frequent than left hemisphere dysfunction or mutable by early or late intervention awaits clarification.

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