

their surgical candidacy work-up. Pearson correlation analysis was conducted to examine the correlations between performance on objective measures of full-scale IQ, and parent ratings on questionnaires assessing parent perception of the patients' overall adaptive functioning, social skills, and social problems.

Results: As expected, earlier age of onset was associated with lower IQ, which itself was associated with weaker overall daily living skills and social skills. Later age of seizure onset was associated greater social problems. Social skills were not correlated with social problems.

Conclusions: The results of this study suggest that children with later age of onset of seizures, are at increased risk of social problems and that these problems may not related to social skill impairment. Implications for clinical practice and future directions are discussed.

Categories: Epilepsy/Seizures

Keyword 1: epilepsy / seizure disorders

Keyword 2: adaptive functioning

Keyword 3: social cognition

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43 Laterality of Hippocampal Volume Differentially Predicts Verbal Versus Nonverbal Memory Performance

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Objective: Epilepsy is a chronic neurological disease, and surgery is a common treatment option for persons who do not respond to medication. Neuropsychology plays an important role in the epilepsy presurgical workup, characterizing the cognitive functioning of patients with epilepsy as well as assisting in the determination of which hemisphere seizures originate in the brain through testing of different cognitive functions. NeuroQuant is a relatively newer software that analyzes clinical neuroimaging to quantify brain volume. The objective of this study was to determine if changes in left versus right total hippocampal volume predicted changes in verbal versus nonverbal memory performance.

Participants and Methods: Cognitive performance and NeuroQuant bilateral hippocampal volume were examined in a cross-sectional sample of 37 patients with epilepsy. All patients had undergone a comprehensive presurgical neuropsychological evaluation as well as magnetic resonance imaging (MRI) and these results were analyzed using a series of linear regression analyses.

Results: Total left hippocampal volume was a significant predictor of delayed verbal free recall (RAVLT $F(1, 31) = 4.79, p < .036, R^2 = 0.13,$ and $\beta = .37, p < .036$). Even when controlling for the effects of biological sex, education, and depression, left hippocampal volume remained a significant predictor ($\beta = .42, p < .025$). Total left hippocampal volume did not predict other verbal memory scores. Total right hippocampal volume was a significant predictor of delayed nonverbal figure recall (RCFT $F(1, 31) = 6.46, p < .016, R^2 = .17$ and $\beta = .42, p < .016$). When controlling for the effects of biological sex, education, and depression, right hippocampal volume remained a significant predictor ($\beta = .404, p < .026$). Total right hippocampal volume did not predict other nonverbal memory scores.

Conclusions: These findings validate prior research demonstrating the importance of the left hippocampus in verbal memory and right hippocampus in nonverbal memory. Findings also demonstrate the clinical utility of neuropsychological evaluation in determining laterality in the epilepsy presurgical workup process, as well as support NeuroQuants' inclusion as an additional consideration in that process.

Categories: Epilepsy/Seizures

Keyword 1: epilepsy / seizure disorders

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44 Finding the Onramp: Understanding Access to Neuropsychological Evaluation in New Onset Pediatric Epilepsy

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