

Cognitive deficits and behavioral disorders in childhood partial seizures

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In this study, patients with an age range of 8-16 years, presented with non-symptomatic partial epilepsy, were divided according to the presented seizure type. They were also subcategorized into newly diagnosed patients prior to starting the antiepileptic drugs (AEDs) and patients who were on AEDs for at least one year. Different clinical assessment scales, a battery of psychometric examinations, laboratory tests, interictal EEG monitoring and auditory event-related potentials (P300), CT scan and MRI brain were performed in this work. The results showed that the performance of the epileptic patients was significantly worse than that of the control children in all psychometric testes used to assess both global and specific cognitive abilities. The global intellectual functions, executive functions and verbal-associate memory are more vulnerable to be affected in epileptic children, regardless the intake of medications. The duration of epilepsy and the frequency of epileptic seizures have a bad impact on both the children intellectual capability and their mood. Children with benign partial epilepsies are the least to be affected regarding the cognitive abilities and mood. The detrimental effects of AEDs on all domains of cognitive abilities and behavioral characteristics were established.