

Seizures and intellectual outcome: Clinico-radiological study of 30 Egyptian cases of tuberous sclerosis complex

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Background and objectives: Tuberous sclerosis complex (TSC) is a multi-systemic disorder that involves primarily CNS, skin, kidney and heart. The aim of this study is to determine whether seizures type, interictal EEGs and tubers burden in MRI are correlated to seizure and intellectual outcome, and to identify the clinical risk factors for mental retardation and developing autism in these patients.

Methods: This was a prospective study that was conducted on 30 Egyptian children with tuberous sclerosis complex (TSC), diagnosed according to the criteria of National Institutes of Health consensus conference revised the diagnostic criteria for TSC. All patients underwent clinical and psychometric evaluation, interictal EEG, and MRI brain.

Results and conclusions: We found that poor intellectual outcome is related to early onset of seizures, infantile spasms, severely epileptogenic EEG findings and tuber burden on the Left side. Autistic behavior is related to seizure type (more with infantile spasms), severely epileptogenic EEG findings, frontal location of tubers and higher number of tubers (>8).

Keywords: Tuberous sclerosis complex -Intellectual outcome-Seizures-Tubers