Summary

In order to study the profile of convulsive disorders affecting Egyptian children in the first two years of life, 164 patients presenting with seizures were enrolled in this prospective study.

All patients were subjected to a thorough neurological examination, laboratory investigations, electroencephalograph and neuroimaging studies to identify the underlying cause of convulsions.

145 (88.4%) infants had their first convulsive fit in the first year of life, 35.3% of whom experienced their first seizure in the neonatal period.

Generalized seizures predominated the clinical picture as they were present in 93.2% of patients whereas partial seizure were found only 6.7%.

Generalized tonic seizures were the commonest type (28.7%) followed by clonic (27.4%), tonic clonic (26.1%) and lastly myoclnic seizures (13.7%).

Patients were categorized into three groups, the epilepsy group (83.5%), the group of febrile seizures (9.14%) and acute symptomatic group (7.3%).

An abnormal EEG pattern was demonstrated in 84.1% of patients and global developmental delay was a major clinical finding in 63.5%. The identical major etiologic factors of the symptomatic group of epilepsy were hypoxic ischemic encephalopathy (23.1%), congenital infections (12.8%), meningitis (7.3%), neurodegenerative disorders (4.8%), aminoacidopathies (3.6%) and brain malformations (3.6%).

A positive parental consanguinity was elicited in 23.7% of cases and appeared to be a major underlying factor in convulsive disorders associated with neurometabolic and neurodegenerative diseases.

The high incidence of perinatal encephalopathy and congenital TORCH infections found in this study suggests that perinatal factors play a major role in the pathogenesis of convulsive disorders in Egyptian infants.

As the majority of the epileptic patients were symptomatic (70.8%) therefore, in infants and children presenting with convulsions, every effort should be undertaken in order to reach a specific diagnosis, to intervene therapeutically as early as

possible especially in treatable neurometabolic disorders and to institute a proper genetic counseling, which would be only feasible after a correct diagnosis.