THE PRIMARY CARE COMPANION
FOR CNS DISORDERS

Supplementary Material

Article Title: Preventable Etiologies of Epilepsies in Saudi Arabia: A Tertiary Care Experience

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1. Supplementary Table 1. Operational Definitions

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Supplementary Table 1. Operational Definitions

DIAGNOSTIC CATEGORIES	DEFINITIONS
Epilepsy	Patients having at least two unprovoked seizures, 24 hours apart, or only one seizure along with a compatible EEG or antecedent history , or diagnosed with an epilepsy syndrome, with at least 60 % likelihood of having recurrent seizures.
Satisfactory seizure control	Patients who were on treatment for epilepsy and had more than 50 % reduction in seizure frequency, pre and post pharmacological intervention.
Unsatisfactory seizure control	Patients who were treated for epilepsy, and received well tolerated, appropriately chosen, and used, AED schedules, (as mono-therapies or in combination) yet they did not achieve more than 50 % reduction of seizure frequency pre and post pharmacological intervention.
Epilepsy due to traumatic brain injury (TBI)	Recurrent unprovoked seizures were present after at least one week following a significant traumatic brain injury, requiring AED therapy, for at least one year. There was no history of epilepsy / seizures before the head injury.
Epilepsy with Hypoxic ischemic encephalopathy (HIE)	Epilepsy started during early childhood in patients with history of brain injury due to antenatal asphyxia, as reported by the parents, and / or given by hospital records, without any evidence of other seizure causing etiologies.
Stroke as a cause of epilepsy (post stroke epilepsy)	Recurrent unprovoked seizures were present after at least one week following a stroke with consistent clinical and brain imaging findings, that required anti-epileptic drug (AED) therapy for at least one year. There should be no history of epilepsy / seizures before the stroke.
CNS infection as a cause of epilepsy	When epilepsy started in close temporal relation with a diagnosed central nervous system infection, having a consistent clinical and cerebrospinal fluid evidence (excluding the acute symptomatic seizures).
Genetic / Idiopathic Generalized Epilepsy (IGE)	Epilepsy (as defined above) was present with normal cognition, head circumference, EEG background, and 3 tesla MRI scan. The birth and antecedent history was also normal. There may also be characteristic EEG epileptiform discharges (atleast 3 hz generalized epileptiform discharges). The age of onset and seizure semiology must be consistent with any of the four syndromes i.e., Childhood Absence

	Epilepsy, Juvenile Absence Epilepsy, Juvenile Myoclonic Epilepsy, and GTCS alone, according to the latest ILAE classification.[7]
Epilepsy with preventable etiology.	When etiology was identified as any one of these four ; traumatic brain injury , stroke, hypoxic ischemic encephalopathy, and CNS infection.[8]
Epilepsy of unknown etiology	Epilepsy without any detectable cause and its clinical presentation was not consistent with any clinical syndrome. These patients underwent adequate investigations including electroencephalography, a 3 tesla MRI scan, autoimmune and other workup where ever indicated as decided on a case by case basis by the treating / reviewing epileptologist.
Mesial temporal sclerosis (MTS), cortical malformations, cerebral tumors	Typical radiological appearance on brain imaging (CT brain, 1.5 or 3 Tesla MRI brain, whichever appropriate), and consistent seizure semiology in epileptic patients.
Inherited metabolic disorders	Patients with epilepsy and consistent clinical presentations, family history, along with genetic analysis when available.
Auto immune disorders	Patients with epilepsy, clinical presentation and consistent serological investigations for autoimmune disorders.

EEG: Electroencephalogram; AED: Anti-Epileptic Drugs; CNS: Central Nervous System