

Abstract:

Purpose Epilepsy is common in sub-Saharan Africa but is poorly characterized. Most studies are hospital-based, and may not reflect the situation in rural areas with limited access to medical care. We examined people with active convulsive epilepsy (ACE), to determine if the clinical features could help elucidate the causes. **Methods** We conducted a detailed descriptive analysis of 445 people with ACE identified through a community-based survey of 151,408 people in rural Kenya, including the examination of electroencephalograms. **Results** Approximately half of the 445 people with ACE were children aged 6 to 18 years. Seizures began in childhood in 78% of those diagnosed. An episode of status epilepticus was recalled by 36% cases, with an episode of status epilepticus precipitated by fever in 26%. Overall 169 had an abnormal electroencephalogram, 29% had focal features, and 34% had epileptiform activity. In the 146 individuals who reported generalized tonic-clonic seizures only, 22% had focal features on their electroencephalogram. Overall 71% of patients with ACE had evidence of focal abnormality, documented by partial onset seizures, focal neurologic deficits, or focal abnormalities on the electroencephalogram. Increased seizure frequency was strongly associated with age and cognitive impairment in all ages and nonattendance at school in children ($p < 0.01$) **Discussion** Children and adolescents bear the brunt of epilepsy in a rural population in Africa. The predominance of focal features and the high proportion of patients with status epilepticus, suggests that much of the epilepsy in this region has identifiable causes, many of which could be prevented