

Some cases of complex partial epilepsy (CPE) are unresponsive to a single drug treatment



Summary

Complex partial epilepsy (CPE) is a developmental disorder defined by recurrent seizures that are localized to one part of the brain and can impair consciousness or awareness. CPE is one of the most common types of epileptic seizures experienced in children, and, if left uncontrolled, may lead to later social and educational problems. Several antiepileptic drugs have been developed to control epileptic seizures. In most cases, these drugs are administered singly; however, treatment with 2 or more drugs may be required in up to 10% of CPE cases. This study examines the association between various clinical factors and the need for multidrug treatment in search of characteristics that can target patients for early multidrug treatment.

This study examined clinical features in 100 children with CPE. The children were divided into two groups based on how many drugs were required to control their seizures. Seizures were controlled with the use of just one drug for 73 children while 2 or more medications were required for 27 children. In addition, several other clinical features were noted, including age of onset of first seizure, duration of longest seizure, number of complex partial seizures prior to treatment, coexisting seizures of other types, neurodevelopmental disabilities, behavioral disorders, and complications during pregnancy. It was found that status epilepticus (persistent state of seizure), other coexisting seizure types, and coexisting developmental disabilities were significantly more prevalent in children requiring multidrug treatment to control their seizures.

What families should know

Seizures in children can substantially diminish overall quality of life and place emotional, social, and economic burdens on their families. Seizures may cause later developmental, language, and cognitive impairments, so early seizure control is essential. CPE in particular is difficult to control, and may even require eventual surgery. Identifying factors that can target children for multidrug treatment at a young age may be able to improve their developmental prospects.

What practitioners should know

This study investigates the factors that may make CPE more difficult to control. Practitioners should be aware that children with CPE accompanied by status epilepticus, other coexistent seizures, or coexisting developmental disabilities may be more difficult to manage and may require multidrug treatment. Practitioners should consider lowering their threshold for multidrug treatment in these patient groups in order to provide effective treatment as soon as possible and promote the best prognosis. In addition, since seizures are more difficult to control in patients requiring multiple drugs, practitioners should monitor these patients with greater frequency and intensity to capture abnormal progress.

Reference

[Sloan, M., Simard-Tremblay, E., Shevell, M. \(2010\). Features of a subset of children with complex partial epilepsy requiring combination therapy for effective seizure control. *Journal of Child Neurology*, 25\(1\), 43-47.](#)