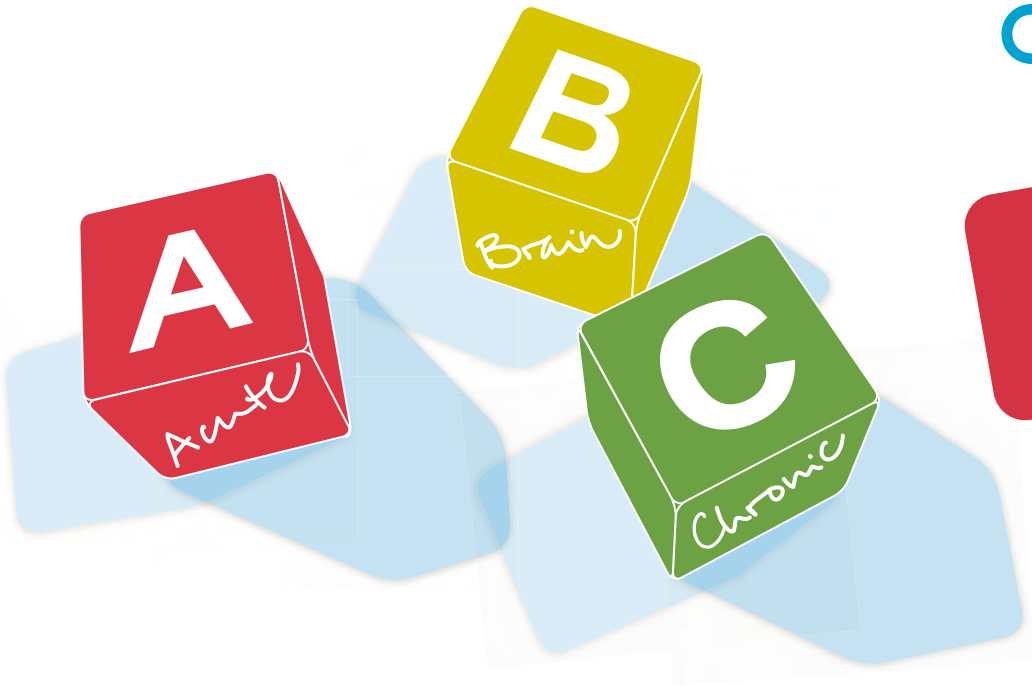
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Abstract Book

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B · Brain – Science & Health
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Building our alphabet

ABSTRACTS

Topic: Epilepsy: Medical and Surgical treatment

EPNS25_763 - Cannabidiol in pediatric patients with Lennox-Gastaut syndrome

Parvana Amrahova[1], Tuğba Hırfanoğlu[1], Zeynep Ozturk[1], Esra Serdaroglu[1], Ercan Demir[1], Ebru Arhan[1]
[1]Gazi University Faculty of Medicine, Department of Child Neurology, Ankara, Türkiye

Objectives: Recently, a plant-derived, highly purified cannabidiol (CBD) formulation with a known and constant composition has been approved by the Food and Drug Administration and the European Medicines Agency (Epidiolex®) for the treatment of seizures associated with Lennox–Gastaut syndrome (LGS). This study presents a preliminary evaluation of the use of CBD in patients with LGS, a treatment-resistant epilepsy syndrome.

Methods Five patients diagnosed with LGS were included in this retrospective analysis. Demographic data, etiology, seizure characteristics, prior treatments, and EEG/MRI findings were recorded. All patients had previously used multiple anti-seizure medications without success. Some had undergone vagus nerve stimulation (VNS) or a ketogenic diet. CBD was administered orally at a starting dose of 5 mg/kg/day, and was maintained at 10 mg/kg/day.

Results: Among the five patients, two were female and three were male, with a mean age of 11.2 years (range: 9–14.5 years). All patients were diagnosed with Lennox-Gastaut Syndrome (LGS). The etiology was unknown in four patients, while one patient had a history of neonatal hypoglycemia. The earliest seizure onset was at four months of age, and all patients experienced multiple daily seizures. Seizure semiology included spasms, atonic, myoclonic, and generalized tonic seizures. Prior to cannabidiol (CBD) treatment, electroencephalograms (EEG) of all patients showed highly active generalized or multifocal epileptic abnormalities, and MRI findings were pathological. Multiple anti-seizure medications had been used without success. Three patients had undergone vagus nerve stimulation (VNS) and were followed up for at least one year, while one patient had been treated with a ketogenic diet. After six months of CBD treatment, patients were reassessed both clinically and with EEG. A reduction in seizure frequency was observed in all patients. In two patients, seizure frequency decreased to 1–2 episodes per month, while in three patients, it reduced to 1–2 episodes per week. EEG recordings of two patients showed no abnormalities, whereas a reduction in epileptiform activity severity was noted in the remaining three patients. No drug-related side effects were observed in any of the patients**.**

Conclusions This preliminary evaluation suggests that CBD may be an effective and well-tolerated treatment option for patients with LGS. Seizure frequency and EEG abnormalities showed improvement in all cases, and no adverse effects were reported. Further large-scale studies are needed to confirm these findings and establish long-term safety and efficacy.