Benign Rolandic Epilepsy (BRE): Seizure Semiology and the Role of an EEG Study

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ABSTRACT

Background: Benign childhood epilepsy with centrotemporal spikes (BECTS) also called Benign Rolandic Epilepsy (BRE) is a common form of childhood epilepsy syndrome. It often occurs during sleep and is characterized by episodes of simple partial motor seizures of the face and/or oropharynx. The aim of this study is to investigate the most common seizure semiology associated with BRE and the role of electroncephalogram (EEG) in this childhood epilepsy syndrome.

Aim and Methods: In this study we conducted a retrospective chart review of patients with BRE who presented to Bahrain Defense Force Hospital (BDF), Kingdom of Bahrain during the period of January 2017 to December 2019. Sixty-nine children were included. Their demographics, description of seizure semiology and their EEG findings were analyzed using descriptive statistical analysis on SPSS and the results are presented in pie and bar charts.

Results: Out of 69 children who were diagnosed with BRE, 36 (52.1%) were found to be males indicating male gender predominance. the average age of the first episode was found to be of 6 years. Most of the patients had their seizures while asleep (88.4%) and we also identified focal seizure as the most common semiology associated with BRE accounting for 61 (88.4%) children followed by hypersalivation 7 (10.1%). We discovered that abnormal EEG findings were found in 45 (65.2%) of total sample size. Out of these, 28 (62.2%) had centrotemporal epileptiform spikes and wave discharges. The other findings that were found in our study demonstrate the important role of EEG in diagnosing BRE and the importance of further future studies.

Conclusion: Most common semiology was focal seizure followed by hypersalivation. The majority of EEG's were abnormal with the commonest finding being centrotemporal epileptiform spike and wave discharges.

Keywords:Benign Rolandic Epilepsy, Seizure semiology, Hypersalivation

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