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# Benign Rolandic Epilepsy - An Atypical Case Report.

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**Abstract**

Seizures or abnormal movements or behavior due to abnormal electrical activity in the brain is a symptom of epilepsy. Childhood epilepsy with centro temporal spikes is also known as Benign Rolandic Epilepsy or Benign Rolandic Epilepsy with cantro temporal spikes. The name is derived from the Rolandic area of the brain which controls movements and accounts for 15% of all epilepsies in children, The average age when it begins is about 6-8 years but it may be seen in children between 3 and 13 years of age.

**Keywords:** Rolandic, Benign, Atypical, Children, Neurological.

## Introduction

Amongst the many neurological disorders, Epilepsy stands to be the most common neurological disorder of the childhood. Approximately around 20%-30% of patients of all the ages across the world most often have the diagnosis of epilepsy wrong.[1] Recurrent, paroxysmal, episodic, involuntary clinical events associated with abnormal electrical activity are the characteristic features of epilepsy. Benign Rolandic Epilepsy, also called as Benign Epilepsy with Centro Temporal Spikes or Sylvian Epilepsy is the most common type of epilepsy seen in childhood between the age group of 4-13 years. This type of epilepsy has an incidence of 10-20 per 1,00,000 children below the age of 15.[2] This form of epilepsy is now called benign childhood epilepsy with centrotemporal spikes and is placed in the group of idiopathic localization-related epilepsies in the International Classification of Epilepsies and Epileptic Syndromes. [2] Symptoms associated with this disorder are that seizures often start as the child wakes up in the morning. There is a feeling of tingling on one side of the mouth involving the tongue, lips, gum and inner side of the cheek. The seizure may also involve the throat which may cause speech to be unclear and therefore difficult to understand. The child may make strange gurgling noises and it is often this which alerts parents. The child often knows what they want to say but cannot speak properly. Seizures are focal and involve unilateral sensory motor function of face; speech arrest and hypersalivation are seen.[3] The seizure may also cause twitching movements (called clonic movements) or a stiffness (called a tonic movement) on one side of the face. These movements may then spread to the arm and/or the leg, usually on the same side as the movements in the face. Occasionally, both sides of the body are affected. When this happens, the child loses consciousness, becomes stiff and has regular, jerking movements of the arms and legs. The child may also be

incontinent. This is called a tonic-clonic seizure. A tonic-clonic seizure is a generalized seizure. After this seizure, the child will be sleepy, and some children may sleep for a few hours.[3]

**Case Report**

A 10-year old male reported to the department for a regular check-up. The child was born to non-consanguineous parents and was the only child. No family history with any neurological illness was reported. He was born at full term with normal delivery. The child came in for routine dental examination. The child when placed on the dental chair for routine dental check-up and oral prophylaxis, unexpectedly got anxious and went into syncope. After the incidence of syncope, a detailed case history was taken. On recording the history, his parents disclosed about the epileptic attack he had at the age of 6 years. When the child was reported to the neurological casualty, he was diagnosed with Benign Rolandic Epilepsy. On enlisting the drug history, he was prescribed with sodium valproate for 6 months following which there were no episodes seen.

**Discussion**

Benign Rolandic epilepsy is represented as 9.6–10.3 percent of all childhood epilepsies.[3] Loiseau and Douche provided 5 criteria for diagnosis of benign childhood epilepsy with centro temporal spikes:[4]

1. Onset between 2-13 years of age

2.. Absence of neurological or intellectual deficit before onset

3. Partial seizures with motor signs, frequent association with somato sensory symptoms or precipitated by sleep.

4. A spike focus located in centro temporal (Rolandic) area with normal background activity on the interictal EEG.

5. Spontaneous remission during adolescence. Typical Rolandic seizure is generally hemifacial, characterized by a clonic manifestations involving hemi hemi face, sometimes preceded by unilateral paresthesia involving tongue, lips, gums and cheeks. The jerks can be associated with a lateral tonic deviation of mouth involving lips and tongue as well as pharyngeal and laryngeal muscles and result in anarthria or speech arrest drooling of saliva due to sialorrhea and saliva pooling.[5]

Significance of these symptoms is that during dental procedures such as administration of local anesthesia for extraction of teeth and root canal procedures could be dangerous as the child who is already experiencing paresthesia would be unable to differentiate the effect of the administered local anesthesia.

In our particular case, the child was anxious and fearful with the dental instruments and went to an episode of seizure. The sudden presentation of the dental instruments and the claustrophobic environment caused the child to be more fearful. The triggering factor for the epileptic attack was only the environment and the fear in the child towards the dental procedures and armamentarium placed. Following the epileptic attack, the area near the child was immediately cleared so as to prevent the child from any harm to himself. The epileptic attack lasted for about five minutes, after which the child recovered by himself without any assistance. Routine dental examination was done followed by oral prophylaxis and topical fluoride application once the child was stable. This episode of seizures in the child was seen nearly after 4 years because of anxiousness and fear.

Treatment of benign Rolandic epilepsy is often not necessary, as the name itself suggests that it is benign, that is, .low frequency of seizure. First line of drugs most commonly prescribed are carbamazepine, sodium valproate and phenytoin.

**Figures:** Pre- operative Photographs:

Fig 1: Pre- operative profile views of patient.

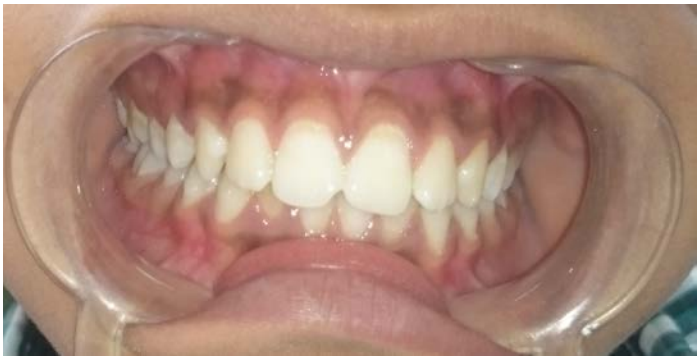

Fig 2: Intra- oral picture of teeth in occlusion.

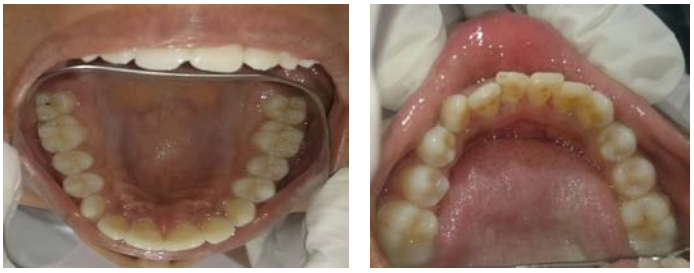

Fig 3: Pre- operative intra-oral view of arches.

Post- operative Photographs:

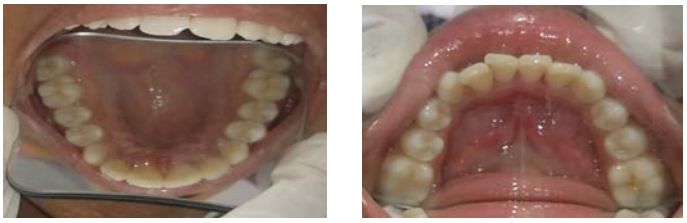

Fig 4: Post- operative intra oral view of arches.

**Conclusion**

Post- operatively the child was kept under observation for a while to rule out any further complications and post-operative instruction were given to the child. Prognosis of this disorder is excellent. Remission occurs within 2- 4 years and prior to 16 years of age.

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