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Case Report

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Occurrence of Motor Seizure in a Patient With Cri-Du-Chat Syndrome: A Case Report

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ABSTRACT

This case report discusses A 6-year-old boy, a known case of Cri-du-chat (cat's cry) syndrome, who was referred to the epilepsy clinic of Imam Khomeini hospital for further evaluation and performing video EEG monitoring. Video EEG monitoring showed two stereotypical ictal clinical habitual events during sleep. These episodes were sudden and showed hyper motor movements in the left lower extremity. Electrographically, a definite ictal pattern evolved to rhythmic slow activity in the left centroparietal region. Brain MRI with epilepsy protocol was unremarkable. Due to the sudden onset of movements depicting hyper motor activity during sleep and abnormal EEG and the fact that the patient is a known case of the cri-du-chat syndrome, this is reported as having a motor seizure is extremely rare in cat cry syndrome. To our knowledge, this is the first report of motor seizure in cat cry syndrome.

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Introduction

The Cri du Chat syndrome (CDCs) is a genetic disease resulting from a deletion of variable size occurring on the short arm of chromosome 5 (5p-). The incidence ranges from 1:15,000 to 1: 50,000 live-born infants. The main clinical features are a high-pitched monochromatic cry, microcephaly, broad nasal bridge, epicanthal folds, and severe psychomotor and mental retardation. cardiac, neurological, and renal abnormalities are also common. [1, 2].

Case Presentation

his case report discusses A 6-year–old boy, a known case of Cri-Du-Chat (cat's cry) syndrome. The patient was referred to the epilepsy clinic of Imam Khomeini Hospital for further evaluation and performing video Electroencephalography (EEG) monitoring.

He is the first product of a three-member family. His parents presented no significant disease and were not blood relatives. They had no history of Central Nervous System (CNS) diseases. Moreover, no epilepsy case existed in other family members of the parents. The mother's pregnancy was uneventful, and she had elective C/S at 36 weeks' gestation without any complications. His birth weight was 2660 grams, head circumference was 32 centimeters, and body length was 49 cm, i.e., within healthy limits. He encountered prolonged jaundice after birth. His problems started after birth with microcephaly, hypotonicity, growth, mental and developmental delays. He was evaluated for TORCH and other congenital infections, indicating no positive results.

Furthermore, his metabolic test results were also negative. All laboratory tests, such as CBC, Ca, electrolytes, liver, and renal function test results, were healthy. Genetics consultation was performed, and a chromosomal study demonstrated the absence of 5p chromosomes, suggestive of Cri-Du-Chat syndrome.

His seizures started at approximately 12 months with rapid eye deviations. He also experienced one episode of tonic seizure with stiffening of all limbs lasting several minutes. He had experienced one seizure every year until the age of 5 years. He has been on Levebel 120mg/day and Na-Valproate 200 mg/day medication before being admitted to the LTM ward. Video EEG monitoring was performed during his two-day stay in the hospital. The relevant data indicated two stereotypical ictal clinical habitual events during sleep. These episodes were sudden and presented hypermotor movements in the left lower extremity. Electrographically, the definite ictal pattern evolved to slow rhythmic activity in the left centroparietal region.

Computer Tomography (CT) scan of the head revealed mild generalized atrophy and enlargement of ventricles. Brain MRI with epilepsy protocol was unremarkable. Due to the sudden onset of movements, depicting hyper motor activity during sleep and abnormal EEG, and that the patient is a known case of Cri-Du-Chat syndrome, this case is reported as having a motor seizure, i.e., extremely rare in this syndrome. To our knowledge, this is the first report of motor seizure in cat cry syndrome.

Conclusion

Seizures in Cri-Du-Chat syndrome are rarely reported associated with deletion or duplication syndromes of the short arm of chromosome 5 or with chromosome 5 rings. One study showed a case report with Cri du chat syndrome associated with infantile spasms and hypsarrhythmia [3] in one study conducted in brazil studying the general prevalence of seizure in cat cry syndrome, only 11 % had a seizure, but no further follow-up on the type of seizure was done [4].

In one study, the occurrence of seizures was discussed in two patients suffering from this syndrome. The first case was a 25-year-old female who had axial tonic seizures with flexion of the neck and shoulders. The second case was a 30-year-old female who had startle epilepsy with falling. Interracial EEG demonstrated generalized spike and slow waves. The data in this study suggests that although these patients rarely suffer from epileptic seizures, the seizures may vary in type [5]. Another study showed another case report of a patient revealing generalized tonic-clonic seizures in cat cry syndrome [6].

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

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Conflict of interest

The authors declared no conflict of interest.

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