



Case Report

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Rare Type of Benign Involuntary Movements in Paediatrics: Shuddering Attacks



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Abstract

- Shuddering attacks are recognized as an uncommon benign disorder occurring during infancy or early childhood.
- It consists of rapid shivering of the head, shoulder, and occasionally the trunk.
- These types of shudders usually stop within a few years.
- In this report we are presenting a case of shuddering attacks in 4 a years old child.

Keywords: Shaking movements; EEG; Brain CT; Benign disorder; Shuddering attacks.

Introduction

Shuddering attacks are recognized as an uncommon benign disorder occurring during infancy or early childhood. The attacks seem to involve shivering movements occurring daily for several seconds without impairment of consciousness. It consists of rapid shivering of the head, shoulder, and occasionally the trunk. Frequency can be up to more than 100 events per day with a great intra-individual variability [1, 2]. The ethology is unknown. Usually occur spontaneously and typically no neurologic abnormalities are found. These episodes share many characteristics of seizure like phenomena, including abrupt onset, stiffening of the arms, and repetitive motor movements.

However, tonic, myoclonic, and absence seizures, and West syndrome, has been reported as a misdiagnosis and may lead to unnecessary anticonvulsive treatment [3]. Therefore, EEG is needed in all cases, some of them with unusual clinical presentations; prolonged video EEG monitoring is helpful. In Shuddering attacks Simultaneous electroencephalographic (EEG) telemetry and videotape monitoring show no concomitant epileptiform abnormalities during the episodes [1].

Further investigations in affected infants are usually not indicated. And parents Reassurance is essential due to benign course of the disease, spontaneous remission can be expected according to previous reports [2]. The path physiology of

shuddering attacks is unknown, although a relationship to essential tremor has been reported [4,5].

Case presentation

4 years old male child was brought in (UHS) University Hospital Sharjah - UAE (ER Department) with a history of abnormal movements of the head for 2 days. The mother described it as shivering movements of the head that last for seconds, the frequency is an episode vary from (every 1-2 minutes to 1-2 hours), start and stop suddenly. The attacks were documented in ER (attached Video). It starts with staring followed by shivering of the neck, last for 2-4 seconds. During the spells the patient was completely conscious, cooperate, and telling story. He mother claimed that the child developed fever and running nose in the same day of ER Visit, and was given paracetamol at home (rectally) and brought to the hospital hence he admitted in Paediatric ward (UHS) for further management:

Vital signs: Temp: 38.1 OC - HR :134 /m - RR: 20 /m - BP 100/60mm.Hg

Clinical examination

Happy and active child, febrile (38,1) with shivering attacks (as described above).

- ENT: mild throat congestion with running nose.
- CVS: S1S2 Normal, no Murmurs.
- Respiratory: Clear to auscultation Bilateral.
- CNS: GSC 15/15, tendon reflexes: +2 and symmetric.
Motor: 5/5 in all muscle groups

Sensory: intact bilateral. Babinski: negative. Meningeal signs: negative.

- Mental Development: appropriate for the age.

Investigations

- CBC: WBC 10.5 cells x 10³/uL, Neutrophil % 57.7%, Lymphocyte % 24.9%, HB 12.5g/dL PLT 414000 cells x 10³/uL.
- CRP: 17 (normal < 5). Glucose: 90 mg/dl. NA 138, Ca 2,3, K 4.
- Vitamin D 25 (Normal > 31).
- Urine toxicology test: Negative.
- Brain-CT scan without contrast: normal study
- EEG: normal study.

The child was seen by Pediatric neurologist in UHS and

advised to be discharged with diagnosis of acute upper respiratory tract infection and shuddering attacks as all investigations were negative and to follow up in OPD for reevaluation. On follow up in OPD (2 Days, 2 Months later): the child still has the shuddering attacks. But frequency is less.

Conclusion

The diagnosis of shuddering attacks is usually based on the history, along with an otherwise normal exam and investigations. Once the diagnosis is confirmed, no further testing or treatment is needed. These types of shudders usually stop within a few years.

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