

Epilepsy in Children: Unusual Presentations

Hisham Maddah Al-Aloosi*

Abstract:

Background: The aim of this study is to prove that epilepsy can be presented in unusual way because of the signs and symptoms in prodrom, aura and postictal period.

Patients and methods: This study was conducted on 18 children patients at Al-Ramadi Teaching Hospital in Al-Anbar, Iraq between Jan. 2009 and Dec. 2011. Complaining of different medical, neurological and psychological problems proved to be epilepsy.

Results: 18 patients 14 (77.77%) were females and 4 (22.23%) were males. Their ages ranged from 4-12 years. They were presented complaining of one of the following: Deterioration in school performance in 4 patients (22.22%). Abdominal pain in 4 patients (22.22%). Attacks of Amnesia in 3 patients (16.66%). Headache in 3 patients (16.66%). Behavioral changes (aggression and sleep disturbance) in 2 patients (11.11%). Nausea and vomiting in 2 patients (11.11%). EEG was positive in 15 patients (83.333%). CT Scan of brain was normal. All cases responded well to Anticonvulsant drugs.

Conclusion: Epilepsy is common in Al-Anbar and presented in different types. In children neither the child nor the parents are aware of the attack resulting in Amnesia, Deterioration in school performance, Headache and behavioral changes.

Keyword: Epilepsy, Children, Amnesia, School performance, Headache.

Introduction:

A seizure or epileptic attack is the consequence of a paroxysmal uncontrolled discharge of neurons within the central nervous system.

The clinical manifestations range from a major motor convulsion to a brief period of lack of awareness. Epilepsy usually presents in childhood or adolescence but may occur for the first time at any age[1]. It is about twice as common in children as in adults. There is increased risk of seizure in children of parents with epilepsy[1]. The prodrom refers to mood or behavioral change which may precede the attack by some hours. The aura refers to the symptom immediately before a seizure. An aura occurs just before a seizure takes place. It can cause the child suddenly feel ill for no reason, to hear sounds that are not real or to smell things that doesn't exist. He may also have problems with his vision or odd feelings somewhere in his body especially in his stomach[2]. The postictal period refers to the time immediately after the ictus during which the patient may be confused, disoriented and demonstrate automatic behaviors[1].

Absence (Petit Mal) is a type of seizure that is most common in children and usually first manifests between the age of 5 and 12 years and often stops spontaneously in the teens[2]. It is characterized by blank stare lasting about half a minute, the person appears to be day dreaming and unaware of surroundings. The content of attacks may vary in an individual patient. Commonly encountered symptoms include: Visceral disturbance, memory disturbance, motor disturbance and affective disturbance[1].

Materials and methods:

During the period between Jan. 2009 and Dec. 2011, a case series study of eighteen patients belonging to unrelated families in Al-Anbar /Iraq were studied as an outpatient. They were

complaining of different medical, psychological and neurological problems after consulting other doctors in different specialties. Careful history taking and clinical and neurological examination was done to each patient. In addition, each one was subjected to laboratory examinations including complete blood counting, blood glucose and serum Ca and serum electrolytes. In addition, EEG and CT Scan of brain were done for each patient.

Results:

The number of patients studied was 18. Fourteen patients (77.77%) were females and four patients (22.22%) were males. The age ranged from 4-12 years. Sixteen patients were in the primary school stage. The duration of symptoms ranged from 2-6 months. All patients were presented by their parents complaining one of the following: Deterioration in school performance after a course of high grades in 4 patients (22.22%), attacks of amnesia in 3 patients (16.66%), abdominal pain in 4 patients (22.22%), headache in 3 patients (16.66%), behavioral changes (aggression and sleep disorders) in 2 patients (11.11%), nausea and vomiting in 2 patients (11.11%). No clear neurological findings was found. Laboratory examinations revealed variable but not significant results (low Hb, low S.Ca⁺² and low Blood glucose in four patients only). History of febrile convulsion was positive in 6 patients (33.33%). EEG was abnormal in 15 patients (83.33%) (generalized 3 Hz spike and wave) and (poly spike discharges) which is usually found in absence[3]. CT Scan of brain was normal in all cases (table one). All cases responded well to medical treatment and controlled successfully by Anticonvulsants. Thirteen cases responded well to Sodium valproate. Two cases needed another drug (Clonazepam and Lamotrigine). Three cases responded to Carbamazepine.

Table 1: The data collected

No.	Age	Sex	Complaint	Lab.	EEG
1	12y	F	↓ School performance	↓ S.Ca ⁺²	+ ve
2	12 y	F	↓ School performance	Anemia	+ ve
3	11 y	F	↓ School performance		- ve
4	10 y	F	↓ School performance		+ ve
5	12 y	F	Abdominal pain		+ ve
6	10 y	F	Abdominal pain		- ve
7	8 y	M	Abdominal pain		+ ve
8	11 y	F	Abdominal pain		+ ve
9	12 y	F	Headache		+ ve
10	10 y	F	Headache		- ve
11	8 y	M	Headache		+ ve
12	8 y	F	Amnesia		+ ve
13	7 y	F	Amnesia		+ ve
14	7 y	M	Amnesia	↓R.B.S	+ ve
15	4 y	M	Behavioral changes		+ ve
16	6 y	F	Behavioral changes		+ ve
17	6 y	F	Nausea & vomiting		+ ve
18	4y	F	Nausea & vomiting	↓ S.Ca ⁺²	+ ve

Discussion:

Epilepsy is a symptoms of numerous disorders, but in the majority of sufferers the cause remains unclear despite careful history taking, examination and investigation. In Al-Anbar province ,the numbers of patients are high according to the lists of patients seen in the out-patient clinics .But the real numbers are higher than the recorded one especially in females because the social stigma stands in the way .The families are attending traditional medicine clinics and looking for religious solutions .The cases studied in this paper were not diagnosed as an epilepsy ,but the presenting features are those of absence from prodrom ,aura and postictal period .The attack lasts only few seconds .The onset and termination are abrupt .The interruption of the normal stream of consciousness is very brief and the child may be unaware of the attacks as may be the parents. This can affect child's education, there- by leading to trouble learning and lower grades[4].Epilepsy in children have been associated with specific behavioral problems .Sleep disturbances and aggression appear to be common[5]. Attention – deficit hyperactivity disorder ADHD reported to be present in (24-39%) of cases with epilepsy in different studies[6]. In addition (23-33%)of children with epilepsy carries the risk for depression and anxiety[7]. The child may experience an aura which involves fear and euphoria.In complex partial seizures the child is awake but not aware of what is going on . Frequently the child repeats an activity (clapping). They have no memory of this activity. After the seizure ends, the child is often disoriented. Visceral disturbance is one of the symptoms of complex partial seizures which

include epigastric fullness, chocking sensation, nausea, pallor and tachycardia[1]. Confusion and headache after an attack are common. All these complaints were a part of a seizure from the prodrom to postictal period. All cases respond to drug therapy (Anticonvulsants). Treatment is aimed at rendering the patient "fit-free". Follow up should continue for 3 years aiming fit-free and a normal EEG. At that time withdrawal of therapy should be considered. Epilepsy can begin at any time of life but it is most common in children. Two or more seizures must occur before a person can receive the diagnosis of epilepsy. Children with epilepsy respond well to medications and they enjoy a normal and active childhood. For some it will be a temporary problem, easily controlled with medication, and out- grow after a few years.

Conclusion:

Epilepsy is often a symptom of disease rather than disease itself. There are many different types of epileptic seizures. Some types may be more common in childhood .In some types of seizure a child may aware of what is happening .In other types a child will be unconscious and have no memory of the seizure afterwards. Absence seizures can be very brief and are often mistaken for day dreaming and neither the child nor his parents are aware of what is happening.

Recommendation:

The approach to investigations depends on knowledge of potential causes. The knowledge about epilepsy can be afforded in simplified way to the parents and teachers through media

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*Dept of Neurosurgery, Al-Ramadi Teaching Hosp, Al-Anbar/Iraq. Email: hishamsurg@yahoo.com