

Case Report

Abdominal epilepsy presenting as recurrent intractable vomiting

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ABSTRACT

Abdominal pain is a symptom associated with both serious and non serious medical issues, is a frequent complaint in childhood. Abdominal epilepsy (AE) is a rare cause of chronic recurrent abdominal pain. AE is usually seen in paediatric group, but there is recorded documentation even in adults. AE is almost always a diagnosis of exclusion. We herein report a case of a 13 years old female patient with h/o recurrent bouts of abdominal pain with vomiting, all routine investigations and imaging modalities were normal. Since all common causes were ruled out, an EEG was taken which showed epileptiform discharges. She was started on anti-epileptic drugs (AEDs), which resulted in symptomatic relief and EEG taken one month after initiation of treatment turned out to be normal.

Keywords: Abdominal pain, Abdominal epilepsy, EEG, AEDs

INTRODUCTION

Abdominal epilepsy (AE) is an uncommon cause for chronic recurrent abdominal pain in children and adults. AE is mainly characterised by a paroxysmal episode of abdominal pain, diverse abdominal complaints, definite electroencephalogram (EEG) abnormalities and favourable response to the introduction of antiepileptic drugs.¹

Due to the vague nature of these symptoms, there is a high chance of misdiagnosing a patient. Making diagnosis of AE can be very challenging; some patients with AE have been considered to have psychogenic abdominal pain and treated without improvement.²

A sustained response to anticonvulsants has been accepted as one of the criteria for the diagnosis of patients with abdominal epilepsy.³

We present a 13 years old patient with AE.

CASE REPORT

The patient is a 13 years old female child presented with recurrent episodes of colicky epigastric pain for the past 2 months. These episodes were associated with vomiting. She had no history of seizure/headache/loose stools/LOC or hiccups. She had similar complaints from November 2019 to February 2020. Detailed evaluation with ultrasound sonography (USG) abdomen, upper GI endoscopy, electrocardiography (ECG), and magnetic resonance imaging (MRI) brain, all results came out to be normal and but patient remained symptomatic. Symptoms resolved spontaneously after 3 months. She was symptom free from March to July 2020.

Present episode started in early August 2020 following which she came to Neurology outpatient department (OPD). Diagnosis of cyclical vomiting syndrome / migraine was suspected. On examination she was conscious, oriented and per abdomen soft, no tenderness, no hepatosplenomegaly. Central nervous system (CNS)

examination showed showed normal higher mental function, cranial nerves, motor and sensory system.

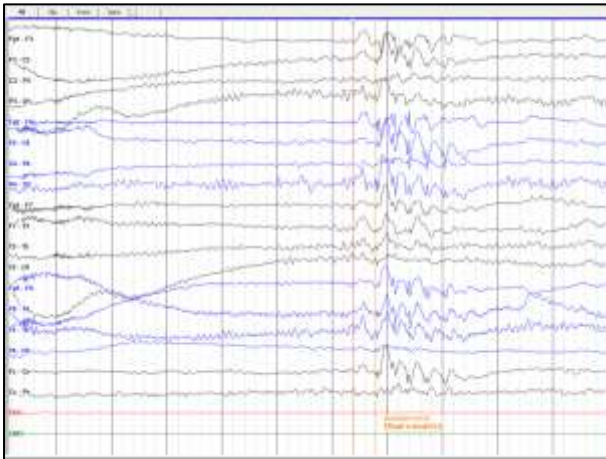


Figure 1: Generalised frontally dominant spike and slow wave discharge.

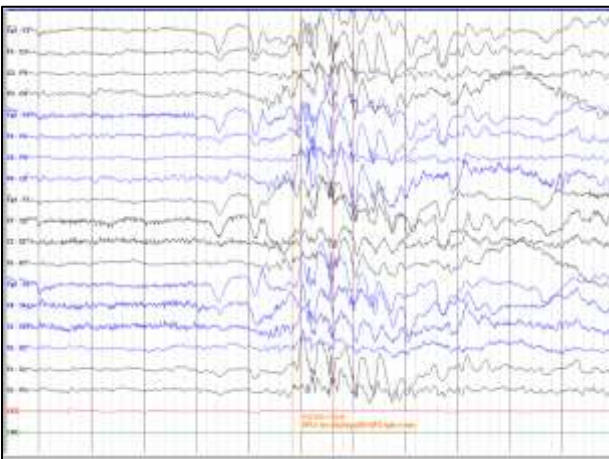


Figure 2: Generalised frontally dominant spike and slow wave discharge.

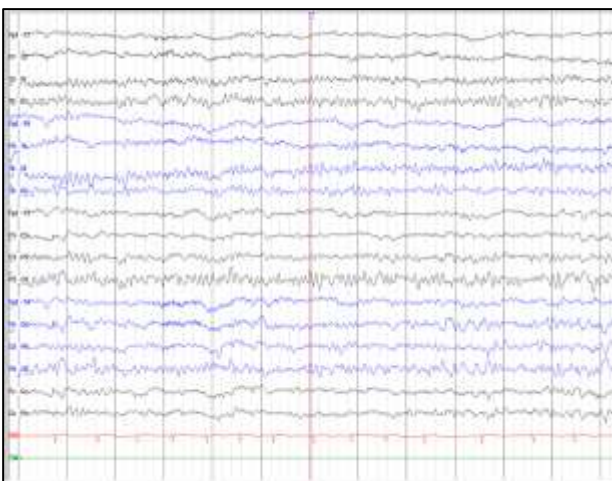


Figure 3: EEG taken after starting AED.

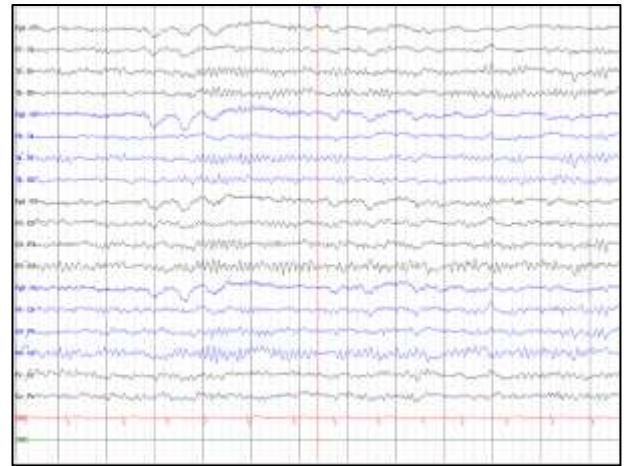


Figure 4: EEG taken after starting AED.

There were no signs of meningeal irritation. She was managed initially with proton pump inhibitors (PPIs), antiemetics and anti-migraine medications, with no symptomatic relief. Psychiatric and OBG consultation were taken. At this point an epileptic etiology was suspected and EEG (Figure 1, 2) showed generalised spikes and wave discharge, then conclusive diagnosis of AE was made and she was started on Levipil and Oxcarbazepine. She got symptomatic relief after initiation of therapy and EEG became normal (Figure 3, 4) and is on regular OPD follow up.

DISCUSSION

AE is a rare disorder and considering the vague nature of its symptoms, it is usually unconsidered and often misdiagnosed/ missed from being diagnosed. It commonly occurs in the pediatric age group, but there is also documentation of its occurrence in adults.⁴ Although many mechanisms have been outlined, the cause of AE still remain unclear. Some possible etiologies have been described, such as cortical malformations, cerebral astrocytoma, febrile seizures, neuroendocrine dysfunction and prematurity.⁵ According to International league against epilepsy; AE are considered to be part of simple/complex partial seizures.³ As AE is also a type of autonomic epilepsy it can also be associated with some autonomic phenomena co-relating with the episodes such as pallor or cold sweating.⁷

AE has variety of presenting symptoms. GI symptoms include paroxysmal pain, nausea, bloating and diarrhoea, whereas CNS symptoms can comprise of dizziness, lethargy, headache, confusion, syncope and transient blindness.³ Although its abdominal symptoms may be similar to those of the irritable bowel syndrome, abdominal epilepsy may be distinguished from the latter condition by the presence of altered consciousness during some of the episodes, a tendency towards tiredness after an episode, and an abnormal EEG.⁸

In patients with abdominal symptoms and headache, it is often difficult to differentiate abdominal migraine from abdominal epilepsy, because of the overlap of symptoms. An EEG is a simple and non-invasive investigation, which may be helpful to differentiate between the two entities, as patients with abdominal epilepsy usually have specific EEG abnormalities, particularly of a temporal lobe seizure disorder.⁹

After the exclusion of more common etiologies, the neurological examination and EEG should be performed in suspected patients.¹⁰ Patients with abdominal epilepsy usually have specific EEG abnormalities. The EEG often shows runs of high voltage slow waves, generalized spikes, and wave discharges or local abnormalities particularly in temporal lobe.¹⁰

CONCLUSION

AE is one of the rare but easily treatable cause of abdominal pain. Our case clearly exhibits how time consuming and challenging is the diagnosis of AE. Abdominal epilepsy should be suspected in patient with recurrent abdominal pain, not improving with standard treatment modalities and after clearly excluding the more common cause to ensure an early accurate diagnosis. If the EEG findings are abnormal, the treatment involves the initiation of antiepileptic drugs with regular follow up.

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