Recurrent abdominal pain as an indicator of epilepsy: A Case Report

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Abstract

Introduction

Abdominal epilepsy is a rare reason why children experience stomach discomfort repeatedly. The haziness of these symptoms makes it very likely to misdiagnose a patient. Paroxysmal episodes of abdominal pain accompanied by neurological symptoms like vertigo, post-ictal sleepiness or tiredness, specific electroencephalographic abnormalities, and a relief in symptoms after antiepileptic drug therapy all help to diagnose abdominal epilepsy. We discuss a fifteen-year-old boy who frequently complains of stomach pain. The reason of the pain was not found despite a detailed evaluation and thorough inquiry. We reached to a diagnosis of abdominal epilepsy based on detail history. Treatment with oxcarbazepine helped to reduce the pain.

Key words:
Abdominal epilepsy, Oxcarbazapine, Recurrent abdominal pain, Seizure

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INTRODUCTION

Autonomic epilepsy, commonly referred to as abdominal epilepsy, is a very uncommon cause of abdominal pain.[1] It is a rare illness in which seizure activity causes gastrointestinal symptoms, most frequently abdominal pain and/or vomiting.[2]

An abnormal electroencephalogram (EEG) with results specific to a seizure condition, paroxysmal gastrointestinal symptoms that are otherwise inexplicable, epilepsy-like Central Nervous System(CNS) symptoms, aberrant CNS symptoms, and improvement with anticonvulsant therapy are its defining features.[1-4] There is an urgent need for correct diagnosis due to the dearth of cases that have been documented, raising awareness among doctors to prevent mistaking these symptoms for "functional" or "psychogenic" issues.[1] We report a 15-year-old adolescent with idiopathic abdominal epilepsy in this publication.

CASE REPORT

A 15-year-old boy visited Nepal Medical College and Teaching Hospital with a complain of ongoing abdominal pain for the last 8 years. The pricking, searing, and non-radiating discomfort was restricted to the umbilical area. The paroxysms began abruptly, mainly in the morning, lasted for 5 minutes to an hour, and then they spontaneously ceased. It was episodic, with many spells in a month and months without discomfort in between. It was not associated with meals or any stressors.

The patient described a two-year history of frequent vomiting. But there had been no prior experience with confusion or an altered state of awareness. He did not have a history of epilepsy, inflammatory bowel disease, seizure and migraine.

Moreover, the patient had not previously gone through a separation, problems relating to family or friends. His illness worsened over the course of nine months, making it difficult for him to attend school. Once very good at studies now he was not able to concentrate at study and often had to return from school due to abdominal pain. There was a significant impairment in overall functioning.

There were multiple visits to the different pediatrician, hospitals and physicians and they conducted a numerous investigations. All system physical evaluations, including the neurological assessment, revealed nothing unusual. All laboratory tests, including a full blood count, liver function test, kidney function test, urine and stool examination, and serum amylase, were within the normal range. Ultrasonography and Contrast Enhanced Computer Tomography (CECT) abdominal imaging were used, and the results showed a normal scan. Antral gastritis was found during an upper gastrointestinal endoscopy, but no abnormalities were seen on a biopsy. The helicobacter pylori antigen in the stool was negative. Multiple tests were conducted with no noteworthy results. The aforementioned symptoms were treated with proton pump inhibitors as antral gastritis, then later as psychogenic cyclical vomiting on many occasions, with no improvement.

The boy and family were worried as the symptoms did not subside and his daily functioning was impairedhampered. At this point, doctors started to lean more toward the psychogenic reason and referred him for patients to a psychiatrist for assessment. He was given Tricyclic Antidepressants (TCAs) and Serotonin Norepinephrine Receptor Inhibitors (SNRIs) during his early evaluations by the psychiatric team, but there was no change after 5 months of medication. The suspicion for abdominal epilepsy thereafter increased. The results of an EEG and a Computer Tomography scan of head however was normal.

The patient began receiving 150 mg of oxcarbazepine once a day at bedtime. He took the drug as prescribed and noticed no negative side effects. Two weeks later, there had barely been any improvement. The dosage was then adjusted to 150 mg twice a every day. On a subsequent visit to the medical facility, the vomiting and stomach cramping episodes were significantly reducedfar fewer. More than one year have passed since his most recent episode, and he has cheerfully returned to his school. The family is finally satisfied and happy to see their son healthy like before.

DISCUSSION

One of the uncommon but manageable causes of paroxysmal stomach pain is abdominal epilepsy.[3] According to Apley, having at least three bouts of stomach pain severe enough to interfere with daily activities for more than three months is considered recurrent abdominal pain.[2]

In the past 34 years, just 36 occurrences have been documented in English literature.[7] It can be challenging to pinpoint the origin of persistent, recurrent, paroxysmal stomach pain in children.[3] Constipation, gastro-esophageal reflux disease, Helicobacter pylori, gastritis, celiac disease, urinary tract infections, parasitic infestation, and surgical disorders including intestinal bands and adhesions are among the most typical organic causes.[7] Others include familial Mediterranean fever, porphyria, and cyclic vomiting.[3] As in earlier case reports, the differential diagnosis in our case included abdominal epilepsy, migraine, helicobacter pylori, gastritis, constipation and gastro-esophageal reflux syndrome.[1-6]

There are various etiologies for abdominal epilepsy. However, we did not detect a possible etiologic factor in our patient. The pathophysiology of disease remains unknown. For diagnosis, a high threshold of suspicion is needed.

In line with our study's findings, the majority of patients experienced recurrent abdominal discomfort that lasted for seconds to minutes or hours to days.[1,3,4] This suggests the necessity for long-term evaluation. The majority of patients were adolescents 3-6 indicating that a person's age may have an impact on how their neurological stomach discomfort manifests. Findings from different case reports, 1–7 revealed the common diagnostic procedures, including blood tests, stool analyses, ultrasounds, and even endoscopies, produced normal results, thereby triggering more inquiry into possible neurological reasons. It was similar to what we performed in our patient. The cause was determined to be abdominal epilepsy, which was supported by EEG data that showed seizure activity in more than half of cases.[1,3,4] In our context, however no anomaly was found.

The role of a specific antiepileptic medicine in abdominal epilepsy has not yet been thoroughly examined. However, the majority of studies demonstrate benefit with carbamazepine or oxcarbazepine, as normally the focus is on the temporal lobe.8Our patient likewise showed improvement on oxcarbazepine.

CONCLUSION

Abdominal epilepsy is rare but abdominal pain in children is quite common. Hence, it is important to be aware of its relevance to neurological manifestation. Thorough history taking of long standing unexplained episodic pain abdomen not getting benefit from conventional treatment, exclusions of other causes and EEG can guide us towards the diagnosis. Moreover, treatment by antiepileptic can resolve such pain.

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