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Case Report

Psychiatry Section

Abdominal Epilepsy in an Adult: A Diagnosis Often Missed

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ABSTRACT

Abdominal Epilepsy (AE) is a variant of temporal lobe epilepsy and is commonly seen in pediatric age group. There are however, multiple reports of abdominal epilepsy in adolescents and even in adults. Chronic and recurrent gastrointestinal symptoms with one or more neuropsychiatric manifestations are often the presenting picture for a patient with AE. Such patients therefore, are more likely to consult a general practioner, a physician, a surgeon or a gastroenterologist than consulting a psychiatrist or a neurologist. We hereby present such a case of AE in an adult with review of similar reports.

Keywords: Abdominal pain, Consultation liaison psychiatry, Temporal lobe

CASE REPORT

A 45-year-old female with no past significant medical or psychiatric history was referred to a psychiatric nursing home by a surgeon for suspected psychogenic abdominal pain. History consisted of multiple clustered episodes of abdominal pain since one year; each episode consisting of insufferable abdominal pain with genuine distress. Pain would begin at the right iliac fossa and radiate to the umbilical area. Each episode of pain lasted 10-15 minutes, and patient would report 5-10 episodes every day. Each episode was associated with non-projectile vomiting. Episodes were not associated with diurnal variation or food intake. Pain was concurrent with severe frontal headache and extreme anxiety. Patient visited a general practitioner and family physician, a physician, a surgeon, a homeopathic physician and a gastroenterologist. Patient was investigated with multiple biochemical investigations, imaging with ultrasonography (USG), Computerized Tomography (CT) scan and endoscopy all of which turned out to be normal. A trial of antidepressant by the surgeon did not improve the symptoms; hence, the patient was referred to a psychiatrist.

Patient presented to the psychiatrist with intense abdominal pain and vomiting. Clinical examination showed tachycardia (120-130 bpm), hypertension (systolic BP 150-180 mmHg, diastolic BP 100-110 mmHg). Even between the episodes, cardiac monitoring showed tachycardia (100-128 beats per minute) and hypertension (systolic BP 140-150 mmHg, diastolic BP 90-100 mmHg). Mental status examination during the episodes showed an intact sensorium, distressed affect, preoccupation with the symptoms with no perceptual disturbances. Neurological examination, which included plantars, reflexes, pupils and optic fundi, was within normal limits during the episodes.

Patient was provisionally diagnosed to have panic disorder with depressive features and was advised admission for diagnostic work-up and treatment. Routine investigations (Complete Blood Count (CBC), Liver Function Tests (LFT), Renal Function Tests (RFT), thyroid function tests and fasting and post-lunch sugars) were sent and found to be normal. Patient was monitored with a cardiac monitor and a pulse oximeter round the clock. Patient was started on a combination of dosulepin (75 mg) and clonazepam (0.5 mg) for psychiatric symptoms and a beta blocker (atenolol 40 mg) for hypertension. Patient reported improvement in vegetative functions, but the episodic pain and autonomic hyperactivity persisted. Considering the episodic hypertension with headache, pheochromocytoma was suspected and was ruled out, when 24 hours urinary Vanillylmandelic acid (VMA) and serum metanephrines turned out to be normal. Abdominal migraine and porphyria were ruled out considering the duration of episodes, lack of any family history and absence of other findings supportive of porphyria. Abdominal epilepsy was then considered as the diagnosis and was supported by Electroencephalogram (EEG) (spike and slow wave complexes in bilateral leads). Patient was started on tablet sodium valproate sustained release 600mg in two divided doses. Patient reported an improvement in subjective experience of symptoms in first 12 hours and vital signs (pulse and blood pressure) normalized within 48 hours. Clonazepam was gradually tapered and stopped during the course of admission and dosulepin was continued with valproate. Patient was observed for five more days and was discharged when no episodes occurred for 48 consecutive hours. Patient came for a monthly follow-up and has been symptom-free for the duration of last 60 days.

DISCUSSION

This case highlights the need of consultation-liason psychiatry in a general medical or surgical practice. Various diagnoses and investigations, all of which focussed on the metabolic, cardiovascular and gastrointestinal system were entertained before the patient was referred to a psychiatrist. Even the reason for referral was suspected somatization or hysterical symptoms and not AE.

Zinkin and Peppercorn in their review of AE have covered 36 cases reported in literature [1]. AE presents with GI-symptoms such as abdominal pain (periumbilical, left upper and right lower quadrant), which is of varying intensity and quality. Abdominal pain is often associated with nausea and vomiting. Common neurological symptoms present in most cases are post-ictal lethargy/drowsiness, Generalized Tonic-Clonic Seizure (GTCS), sweating/ paraesthesias, pain and blindness [Table/Fig-1]. This case too presented with episodic abdominal pain and extreme anxiety and headache as shown by other authors [1,2]. It can thus be assumed that, such a diverse array of clinical features and is the reason why AE is often misdiagnosed or not suspected [3]. The age at onset of symptoms and age at diagnosis in most of the cases, including this case is the 4th and 5th decade [1,2,4-6] which

Author	Age (Age at onset)	Gender	GI- symptoms	CNS symptoms	EEG	Treatment
Murai [5], 2013	63 (30)	F	Abdominal discomfort, diarrheoa,	LOC, palpitations	Sharp transients and delta waves in anterior-midtemporal leads	CBZ
Dutta [6] 2007	50 (35)	M	Intermitted abdominal discomfort, vomiting		Left temporal dysrhythmia	OXC
	52 (37)	F	Vomiting, abdominal discomfort	Headache, drowsiness	Right frontal focal abnormality with generalization	OXC
Topno [4], 2005	38 (36)	F	Epigastric-umbilical pain, peculiar sensation in the abdomen	LOC, Post-ictal amnesia	Right fronto-temporal sharp waves	Phe
	21 (21)	F	Episodic abdominal pain, vomiting		Spike and wave pattern	Phe
Tiamkao [2]	20 (20)	F	Episodic Left Upper Quadrant (LUQ) pain with nausea	GTCS	Sharp wave discharges	Phe, Dia
	46 (46)	M	Episodic epigastric pain, vomiting		Spike and wave pattern	Phe
Present	45	F	Intense abdominal pain and vomiting		Spike and slow wave complexes in bilateral leads	Sodium valproate

[Table/Fig-1]: Demographic profile and clinical profile of cases of abdominal epilepsy reported in adult population.
GI- gastrointestinal, CNS – central nervous system, GTCS – generalized tonic, clonic seizures, Phe – phenytoin, CBZ – carbamazepine, OXC – oxcarbazepine, Dia – diazepam LOC-Level of consciousness

is again in stark contrast with other forms of epilepsy. Literature also shows a gender preference with female preponderance in AE, an observation which requires further investigation and evaluation.

CONCLUSION

To conclude, abdominal epilepsy in adults can be masked or misdiagnosed as a physical or psychological disorder and be subjected to a number of expensive, time consuming and inconclusive investigations. Creating awareness among physicians and surgeons about this clinical entity will prove much fruitful in patient care.

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