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An Interesting Case of Adult Cyclic Vomiting Syndrome and Its Long Term Management.

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ABSTRACT

Cyclic vomiting syndrome is an increasingly recognized cause of nausea and vomiting in adults. We report this case of a 40 year old female with recurrent episodes of intractable nausea and vomiting for more than 4years. Her symptoms persisted for 3–5 days on an average and then resolved spontaneously, only to return after periods of time ranging from few weeks up to a month or two. After an extensive workup, which failed to determine any causative explanation for her symptoms, she was diagnosed with cyclic vomiting syndrome. Her episodes of vomiting were successfully terminated with the use of ondansetron for aborting episodes initially, later continued with amitriptyline. In this case, we highlight that amitriptylline4 effectively aborted symptoms in an adult patient with cyclic vomiting syndrome, increasingphysician's awareness of adult cyclic vomiting syndrome may improve care of patients suffering from this debilitating condition.

Keywords: Cyclic vomiting, Amitriptyline, Ondansetron, sleep hygiene

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INTRODUCTION

Cyclic vomiting syndrome (CVS) is a disorder with recurrent episodes of severe nausea and vomiting interspersed with symptom free periods. This syndrome was first described in the English literature in 1882. While CVS has been studied in paediatric populations, its occurrence in adults has been underappreciated. It is now thought that this crippling syndrome can occur in a variety of age groups including adults. [1-3]

Treatment of patients depends on the frequency and severity of the vomiting episodes and may include the following:

1) prophylactic medications and 2) medications to help abort an episode [4,5].

The following are the objectives of this article: 1) Present a case report of amitryptalline[4,5]effectively in aborting symptoms of adult cyclic vomiting syndrome with migraine diathesis (patient was already on propranolol medical records not available) 2) Educate the physicians to recognize cyclic vomiting syndrome as an infrequent, but known cause of nausea and vomiting in adults.

CASE REPORT

A 40yr old female presented with intermittent episodes of vomiting for the past 4 years and more . When the symptoms first appeared, she would only feel nausea that would appear suddenly and might even wake her from sleep. The symptoms gradually progressed over the subsequent several months to years , and she began to vomit as well. For the past six to eight months before presentation, the symptoms had assumed a predictable pattern and were now reliably associated with a prodrome of mid-epigastric abdominal discomfort that lasted less than 24 hours. This would lead into the acute onset of recurrent vomiting, usually beginning in the early morning hours. Up to 15 episodes of vomiting occurred per day, each episode lasts for 10 to 15 min and were often associated with severe, diffuse abdominal pain. Vomiting would continue for 4-5 days, often requiring hospitalization for IV hydration, and then would end abruptly. For the above patient was started on tab . propranolol by a general physicianelsewhere details not available. A symptom-free period lasting from few weeks up to a month or two, after which the symptoms would return exactly as before. Patient didn't find any improvement with tab.propranolol. There were no clear precipitating factors for these episodes, and the vomiting was exacerbated by drinking water and eating large meals. Efforts to modify her diet in order to identify any foods which might be exacerbating her condition were unsuccessful.

The patient's past medical and surgical history was not significant. She gives vague history of headache preceding this episode occasionally associated with photophobia.no aura. she had lost more than 10kgs since the onset of her symptoms few years ago but denied fevers, vision changes, numbness, or blood in her stool or emesis. She denied vertigo or light-headedness. The patient was clinically depressed and overly anxious (due to repeated hospitalizations for her condition). She is married and does her household work. She is not an alcoholic and smoker, no illicit substance abuse. Family history was not significant. On probing with repeated questionnaires in recent visits patient gives family history of migraine in her maternal uncle.

Physical examination at presentation, pulse 96 regular, blood pressure 100/70mm hg sitting , respiratory rate 20 per minute, temperature 98.8 Fahrenheit, and weight 38 kgs (originally 50kg few years prior). Lungs were clear and heart sounds were normal. The abdomen was soft, non-tender, non-distended, with normal bowel sounds and no hepato-splenomegaly. Neurologic examination was normal.

Laboratory evaluation revealed normal serum electrolytes, serum creatinine 1.2 mg/dL [normal range: 0.8–1.3 mg/dL], blood urea nitrogen 22 mg/dL [10–20 mg/dL], white blood cell 8200/uL [4000-11000/uL] (76% segmented neutrophils, 20% lymphocytes, 4% monocytes), haemoglobin 12.7 g/dL [13.5–17.5 g/dL], alanine aminotransferase 29 U/L [21–72 U/L], aspartate aminotransferase 18 U/L [17–59 U/L], total serum bilirubin 0.7 mg/dL [0.0–1.2 mg/dL] , amylase 60 U/L [0–140 U/L], lipase 50 U/L [0–300 U/L], albumin 3.2 g/dL [3.5–5.8 g/dL], pre-albumin 23.0 mg/dL [16.6–43.1 mg/dL], normal urinalysis, HIV negative, negative urine toxicology testing, TSH 1.2 uIU/mL [0.4–4.0 uIU/mL] and ESR 6 mm/h [0–15 mm/h].

An extensive workup was initiated over the next several months including abdominal radiography, ultrasound, CT/MRA/MRI of the abdomen, MRI of the brain, upper GI with small bowel follow-through and

upper and lower endoscopy, all of which failed to reveal any abnormality to explain her symptoms. These studies were each performed while the patient was symptomatic during her multiple hospitalizations over a period of time. A gastric emptying scan was performed while the patient was asymptomatic and off any prokinetic agents. It demonstrated accelerated gastric emptying . According to the Rome III Criteria, a diagnosis of cyclic vomiting syndrome was made.

Patient was put on anti-emetics (ondansetron) to abort her vomiting episodes. She was already on tab.propranolol 10mg BD .Tab. amitriptylline [4] was added to the treatment and slowly withdrawn from propranolol. She was given re-assurance and proper counselling.She advised regarding avoidance of trigger factors. Proper sleeping hygiene was emphasized. Her bouts of vomiting were well controlled with this treatment and now she is on a regular follow up with us.

CONCLUSION

Cyclic vomiting syndrome can occur in adults as well as children and is an increasingly recognized disorder. New treatments are becoming available. But still amitriptylline[4] effectively aborted symptoms in an adult patient with cyclic vomiting syndrome. Long-term outcomes and the natural history of cyclic vomiting syndrome in adults will require more studies.

AGA - ROME III DIAGNOSTIC CRITERIA [8]:

The following three criteria must be fulfilled for the last 3 months with symptom onset at least 6 months before diagnosis:

1. Stereotypical episodes of vomiting regarding onset (acute and duration (less than 1 week)
2. Three or more discrete episodes in the prior year
3. Absence of nausea and vomiting between episodes

Supportive criteria for the diagnosis of CVS includes: History or family history of migraine headaches.

Foods are responsible for the majority of allergicre actions:

- Cow'smilk
- Eggs
- Fish
- Peanuts
- Shellfish
- Soy
- Treenuts
- Wheat

Other foods have been ruledout

Table:

Disorders That Mimic Cyclic Vomiting Syndrome in Adults

Gastrointestinal disorders	Typical evaluation
Gastric disorders	
Peptic ulcer disease	Upper endoscopy
Gastroparesis	Gastric emptying scan
Gallbladder disorders	
Cholecystitis	Abdominal ultrasound
Biliary tract dysmotility	HIDA scintigraphic imaging
Small bowel disorders	
Intermittent small bowel obstruction	CT enterography
Chronic intestinal pseudo-obstruction	Abdominal obstruction radiographic series

Malrotation with volvulus	Upper GI with small bowel follow-through
Other	
Abdominal migraine	Similar to CVS
Extra-intestinal disorders	
Central nervous system abnormalities	
Mass	Head MRI
Hydrocephalus	Head MRI
Renal Disorders	
Nephrolithiasis	Urinalysis
Ureteropelvic junction obstruction	Renal ultrasound
Hormonal and metabolic disorders	
Adrenocorticoid insufficiency	Plasma cortisol
Acute intermittent porphyria	Urinary porphyrins
Other	
Chronic cannabis use	Response to cessation of cannabis use
Psychogenic vomiting	Psychiatric evaluation

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