

Case Report

Cyclical Vomiting Syndrome: Psychiatrist's View Point

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ABSTRACT

Cyclical vomiting syndrome (CVS) is an idiopathic functional disorder characterized by recurrent episodes of nausea and vomiting separated by symptom-free intervals. Even though initially described in children, it is seen in all age groups. Exact etiology is not known. Various physical, infectious, and psychosocial stressors have been implicated for CVS. High incidence of psychiatric comorbidities such as panic attacks, anxiety disorder, and depression is seen in CVS. Most children outgrow CVS with time though some may transition to migraine or continue to have CVS as adults. Frequent misdiagnosis, delay in diagnosis, or inadequate treatment often lead to years of recurrent vomiting. This case report highlights the importance of the management of CVS by a multidisciplinary team including a psychiatrist in addressing the various physical and psychological factors effectively and that would result in faster and prolonged recovery.

Key words: *Cyclical vomiting syndrome, psychological interventions, somatoform disorder*

INTRODUCTION

Cyclical vomiting syndrome (CVS) is an under-recognized functional gastrointestinal (GI) disorder. It consists of recurrent, sudden, and stereotypical episodes of severe nausea and vomiting separated by periods which are symptom free.^[1] It is relatively a common disorder of childhood with an estimated prevalence around of 1.9%.^[2] CVS usually occurs before 5 years of age, and female children are affected more than males.

The exact etiology of CVS is not known. Since CVS shares some of the characteristics with migraine,

it may be considered as a migraine variant.^[3] CVS is associated with high incidence of psychiatric comorbidities. It is observed that this syndrome is frequently accompanied by panic attacks, anxiety, and depression in children as well as in adults.^[4] Psychosocial factors also play a role in triggering this condition. Here, we present a case report of a child with CVS to highlight the psychological underpinnings and the role of a psychiatrist in the management of this condition.

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CASE REPORT

A 6-year-old female child with her grandmother was referred from pediatric gastroenterology to the child psychiatry department with complaints of recurrent vomiting and behavioral problems such as anger outburst, breaking things, and hitting others for 3 years. Vomiting episode started when she was 3 years of age. Vomiting had started suddenly and was associated with headache. She had 10–12 times of vomiting on that day, and it continued for 2 days. Vomiting stopped by itself after 2 days without any medication. Then, the child started to have similar episodes of vomiting repeatedly in the next 3 years. The symptom-free interval between two episodes of vomiting ranges from 1 day to 1 month. During symptom-free interval, the child was normal without any physical complaint and was regular in her daily activities. No particular precipitating stressor could be found for triggering the vomiting episode. Each vomiting episode was severe, and it led to impairment in normal functioning. It usually contained food substances or bile and rarely blood strained.

She had occasional anger outburst at times at home which was not related to any specific trigger or situation. At the time of anger outburst, she used to hit her grandmother and break the things she has at hand. She used to have this behavior for few minutes, and then, she becomes calm by herself. After that, she used to apologize for her behavior.

Born of nonconsanguineous marriage, she is the only child and with normal developmental milestones, studying first standard in a regular school with very poor academic performance. Even though self-care is present in the child, supervision is needed at times. She is able to interact and play with her friend at school and home well.

The child had significant psychosocial stressors – father expired when the child was 6 months of age due to blood cancer. The child was brought up by her grandmother as her mother goes to work from morning till evening. Mother used to physically punish the child for trivial reasons. The child is not attached with the mother but only with grandmother. Family history included mild intellectual disability in mother and patient's half-brother died of seizures at his 10 months of age.

At first, she was admitted as in patient in pediatric gastroenterology ward and was evaluated for the recurrent vomiting. All the blood investigations were normal. Her upper GI endoscopy showed some features of gastritis but no gross abnormality. She was also evaluated by pediatric neurology department. Clinical

examination and computed tomography of the brain were normal.

On examination, the child was moderately nourished without any sign of physical illness. Her vitals were stable, and her systemic examination revealed no abnormality. On mental status examination, well kempt and cooperative for the interview, rapport could be established with difficulty. She answered the questions relevantly and coherently in short sentences. No psychopathology could be elicited in her speech, thought, and mood. No perceptual disturbance could be found.

She was administered Malin's Intelligence Scale for Indian children and found her IQ be 70. The child behavior checklist was administered to look for any psychopathology in the child. It did not score for any specific domain. She was diagnosed as suffering from somatoform disorder unspecified, according to the International Statistical Classification of Diseases-10. Family members were psychoeducated about the condition, need for treatment, and continuous follow-up. Behavioral techniques were taught to family members for anger outbursts and adamant behavior. The child was treated on sertraline 25 mg at night. The child improved with the medication. The child is on regular follow-up, and her vomiting episodes have reduced in frequency and severity.

DISCUSSION

Psychiatric disorders are common comorbidities in CVS. One of the common features is the presence of anticipatory anxiety about the occurrence further episodes and this anxiety can increase with future episodes. In one study, it was found that a history of physical, emotional, or sexual abuse during childhood was present in 44% of adults with CVS.^[5] It was also found that they had prior history of mood, anxiety, or substance use disorder. A study in adolescent CVS showed that there is an increased risk for internalizing psychiatric disorders with anxiety disorder present in 47% of the participants. Internalizing disorders were also prevalent in the parents with mothers reporting a significantly higher prevalence of anxiety disorders (35%) when compared with fathers (13%).^[6]

Various studies show that sometimes the cyclical vomiting can be used as a somatizing process, where the patient consciously or unconsciously uses the body symptoms for personal gains or psychological advantage.^[7] The child may use the cyclical vomiting as a defense mechanism against the anxiety produced by parents' hostility toward them. This behavior when repeated may reinforce in the child. Hence, CVS can

a reaction to psychological stress, and a mental health referral is warranted to alleviate the psychological stressors.

There is a strong association between CVS and migraine. There is an increased incidence of family history of migraine in CVS than in general population, and nearly 24%–70% of patients with CVS have migraine.^[8] In children with CVS, they tend to develop migraine with age. These two disorders have similar symptoms such as pallor, photophobia, and nausea. Similarly, both the conditions respond to antimigraine therapy.^[9]

Since the exact pathophysiology of CVS is not known, the treatment of this condition is largely empirical. A comprehensive multidisciplinary management is needed to treat the condition effectively. Psychiatrists play an active role in the management of CVS. While the physician treats the physical needs, psychiatrist addresses the psychological aspects of the patient.^[10] Better outcome is obtained by addressing both the problems simultaneously.

It is important to address the family relationship in the case of child with CVS. Abnormal child–parent interaction can act as trigger. In this case, family therapy will be helpful in reducing the stress on the child and may lead to reduction and severity of the episodes. Primary role of the psychiatrist is to give psychological support to the child and family members. This starts with the psychoeducation and alleviating the fears about the condition. Prompt diagnosis of the condition and explaining in detail about the condition to the parents can bring down the anxiety in them.^[11]

Anxiety in the patient can act a trigger for further episodes. The frequency and severity of the episodes also depend on the presence of anxiety in the patient. Various interventions, both psychological and pharmacological, can be used to treat the anxiety present with this condition. Psychological interventions commonly used are cognitive behavior therapy (CBT), relaxation techniques such as progressive muscle relaxation technique, guided imagery, and rarely hypnosis. Along with psychological intervention, anxiolytics can also be used in this condition.^[12]

Depression is a major psychiatric illness comorbid with CVS. CBT and antidepressants specifically tricyclic antidepressants can be used to treat depression.^[13]

Only few data are available regarding the long-term follow-up of CVS patients. In one study, with the average follow-up of 4 years, 86% of patients felt better after intervention while a few patients deteriorated.^[14] Patients without medical or psychiatric comorbidities

had a better prognosis when compared to patients with comorbidities.

CONCLUSION

The course of certain psychiatric disorders is cyclical in nature. Most important among them are the bipolar affective disorder, seasonal affective disorder, and premenstrual dysphoric disorder. The exact reason for the cyclical nature of these disorders is not known. Extending this, CVS can also be viewed as a cyclical disorder with symptoms during the episode with premonitory levels in between. Further research in the cyclical vomiting may throw light on the possible etiology of cyclical nature of certain psychiatric disorders.

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Conflicts of interest

There are no conflicts of interest.

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