

Case report**Treatment of chronic psychogenic vomiting in an adolescent – successful use of multiple therapeutic strategies**

Vinayak Koparde, Vinutha Ramesh, Preethi Anne Ninan, Nithya Poornima, Satish Chandra
Girimaji

Address for correspondence: Cumbria CAMHS, NHS, United Kingdom. Email id:
vinayk127@yahoo.co.in

Abstract

Children and adolescents commonly present with physical symptoms which cannot be explained by known somatic etiopathogenesis, and psychogenic vomiting is one of them. Persistent vomiting as a manifestation of psychological stress is not very common but it can be associated with severe functional impairment and significant burden on caregivers. The guidelines for treating psychogenic vomiting have not yet been established and the treatment for such a condition need to be tailor made for individual patient and can be challenging in clinical practice. There are reports of treating psychogenic vomiting using different forms of psychotherapies and antidepressants. Here we report successful treatment of psychogenic vomiting in an adolescent using multiple therapeutic strategies. Pharmacological treatment including escitalopram and amitriptyline along with multiple psychotherapeutic interventions were used.

Key words: Psychogenic vomiting, Adolescent

Introduction

Children and adolescents commonly present with physical symptoms which cannot be explained by currently known somatic etiopathogenesis. The common somatic presentations of underlying

psychological stress include stomach aches, headaches and joint pains. Studies report nearly 10–30% of children and adolescents are affected by functional somatic symptoms [1] and 28.8% adolescents had functional gastro-intestinal disorders [2]. Psychogenic vomiting is defined by Leibovich as “vomiting without any obvious organic pathology or 'functional' vomiting, resulting from psychological mechanisms” [3]. Persistent vomiting as a manifestation of psychological stress is not very common but it can be associated with severe functional impairment, significant burden on caregivers as child undergoes painful investigations and repeated medical evaluations. The treatment for chronic psychogenic vomiting can be challenging in clinical practice. There are reports of treating psychogenic vomiting using supportive psychotherapy, behavioral therapy, autogenic training, and antidepressants [4-7]. Escitalopram has been suggested as an effective option for psychogenic nausea and vomiting associated with depression in 36 and 47-year-old in a report because of its favorable gastro-intestinal tolerability profile [8]. Therapeutic measures in children have included integrating systems theory and attachment theory in addition to above mentioned treatments [9]. Here we report successful treatment of chronic psychogenic vomiting in an adolescent using multiple therapeutic strategies both pharmacological and non pharmacological.

Case history

An adolescent aged 14 years studying 9th standard belonging to middle socio-economic status from rural background was admitted in tertiary care child and adolescent psychiatry hospital. He was first of two siblings, born out of non-consanguineous union by Caesarian delivery and attained developmental milestones age appropriately. He presented with sudden onset symptoms since eight months, initially characterized by low grade fever, diarrhea and one episode of vomiting which lasted for three days and recovered with medical treatment. After this brief illness he started

to have vomiting for solid food initially which used to occur immediately after food intake. This progressed to vomiting of semi-solid and later liquids over next 6 weeks and during our evaluation he was unable to retain water or any medicines. Vomiting used to occur within seconds of finishing eating or drinking and he used to receive intravenous fluids with Dextrose two to three times in a week for complaints of fatigue and weakness. He had lost ten kilogram of weight in eight months, stopped attending school for six months and as a result of repeated vomiting his voice quality became hoarse. Initial evaluation did not reveal any stressor, depressive or anxiety symptoms. He had undergone multiple investigations like MRI brain and abdomen, Ultrasonography of abdomen, upper GI endoscopy, Barium meal studies, complete liver and renal function tests, hemogram, serology for HIV, HBsAg, HCV infections, stool for occult blood, screening for inborn errors of metabolism using Tandem Mass Spectrometry and urine tests. All investigation reports were within normal limits and physical examination revealed loss of subcutaneous fat, sunken eyes and a Body Mass Index (BMI) of 16.5.

He was admitted with his mother in tertiary care, child and adolescent psychiatric unit having multidisciplinary approach for treatment. During beginning of treatment he was guarded, rapport was not established and expressed his unhappiness to stay in the hospital for treatment. He was demanding for intravenous Dextrose to relieve his symptoms and expressed his anguish that nobody understands his 'pain'. Detailed exploration of his temperament revealed that he was sensitive to criticism, excessively attached to mother and stubborn. He preferred to remain on his own, had little interest in outdoor play or academics and reacted with intermittent crying and sadness when criticized by family about his illness. The symptoms did not meet criteria for major depressive disorder as per International Classification of Diseases-10 Diagnostic Criteria for Research (ICD-10 DCR). Initial engagement was characterized by complete denial of any stressor

in family or school and avoidance with “I don’t know”, “I don’t remember” answers. He was also resistant to assessment using Child Apperception Test (CAT). He was started on escitalopram 5 mg/d which was increased by 5 mg at a time every week up to 15 mg/d due to partial response. After first week of inpatient care he was noted to be adjusting to hospital stay and started attending ward activities with constant encouragement and social reinforcers but vomiting continued. Detailed interviews with his grandparents revealed that his younger sister did much better academically and he faced the criticism of being dull and physical punishment on several occasions by his father. He was also noted to avoid his responsibilities at home and school by family members. Observation in hospital showed that he had significant distress during eating, ate hastily and did not vomit minor quantities of food if parent was not around. As a therapeutic strategy he was left alone while eating and was coached to eat slowly and in a relaxed state chewing food adequately before swallowing. Changes in the conditioned response of the vomiting behavior were made by changing place of eating, use of distraction after eating and coupling meals with food he liked. Feedback about balanced diet, ideal weight for age and BMI was provided using growth charts. After three weeks of treatment he started retaining small quantities of semisolid food. Amitriptyline up to 25 mg/d was started in view of persistent symptoms of vomiting, probable role in the treatment of functional gastrointestinal disorders [10]. When the therapy sought to shift his perspective about symptoms from a medical to a biopsychosocial model, he started challenging the treating team and placing the whole responsibility of achieving a cure, on the team. After 4 weeks of stay and gentle confrontation he started revealing fear of father, anxiety about physical punishments and academic pressure at home. Anxiety management using relaxation techniques and family based intervention to improve parent-child relation by having quality time together, open discussions, reassurance about no punishment and attention to positive aspects of his

personality were involved during therapy. After six weeks of inpatient treatment he used to have intermittent vomiting in a day. He was discharged after eight weeks of inpatient treatment and gained about ten kilograms in 12 weeks after treatment with complete cessation of vomiting and BMI improving to 20.1. He came regularly for follow ups and maintained improvement at the end of 24 weeks of treatment.

Discussion

This case was approached initially with an open mind about the cause of vomiting and it is important that relevant structural and biochemical causes must be ruled out with appropriate investigations before making a diagnosis of functional disorder. Careful history should be taken to rule out rumination syndrome, cyclic vomiting syndrome and an eating disorder with body image distortion. Psychogenic vomiting has been described as a symbolic communication; means of displacing anger, escape, learned behavior and a somatic equivalent of anxiety. In this case, many of these factors were evident such as escaping from responsibilities; anxiety arising from strained parent-child communication, complex conditioned eating habits reinforced by secondary gains when he had medical illness initially. Predisposing factors identified during the case formulation are insecure attachment with mother, poor coping skills and possible low self-esteem due to comparison with sibling and punishment. The illness was precipitated by medical condition and perpetuated by parental attention, secondary gains from relief of academic responsibilities. These problems were tackled in psychological management. Plenty of time was spent in establishing rapport, empathizing with patient, understanding patient's temperament, parent-child relations, academic abilities and family dynamics. Vomiting once experienced during organic or functional disease can get reinforced by short term secondary gains and becomes a habit, which can be regarded as a learned behavior. The intervention program for psychogenic vomiting usually needs

to be tailor-made taking into account individual needs and variations of the patient [11]. We used elements of supportive therapy during initial phase of therapy to establish engagement. Cognitive restructuring and behavioral interventions aimed at relaxation training and reducing anxiety during eating process comprised major part of therapy intervention. Inclusion of family based intervention and pharmacological strategies helped to relieve symptoms when used with other techniques. An individualized intervention plan helped to relieve psychogenic vomiting completely and also acceptance of the hypothesis of causation put forward to the patient.

Conflict of interest: None declared

References

1. Campo JV, Fritsch SL. Somatization in children and adolescents. *J Am Acad Child Adolesc Psychiatry* 1994, 33:1223–1235.
2. Devanarayana NM, Adhikari C, Pannala W, Rajindrajith S. Prevalence of functional gastrointestinal diseases in a cohort of Sri Lankan adolescents: Comparison between Rome II and Rome III criteria. *J Trop Pediatr* 2011, 57:34–39.
3. Leibovich MA. Psychogenic vomiting: psychotherapeutic considerations. *Psychother Psychosom* 1973, 22:263-268.
4. Muraoka M, Mine K, Matsumoto K, Nakai Y, Nakagawa T. Psychogenic vomiting: the relation between patterns of vomiting and psychiatric diagnoses. *Gut* 1990, 31:526–528.
5. Weddington WW. Psychogenic nausea and vomiting associated with termination of cancer chemotherapy. *Psychother Psychosom* 1982, 37:129-136.
6. Haggerty JJ, Golden RN. Psychogenic vomiting associated with depression. *Psychosomatics* 1982, 23: 91-95.
7. Golden RN, Janke I, Haggerty JJ. Amoxapine treatment of psychogenic vomiting and depression. *Psychosomatics* 1988, 29:352-354.
8. Hsu WY, Huang SS, Chiu NY. Escitalopram for psychogenic nausea and vomiting: A report of two cases. *J Formos Med Assoc* 2011, 110:62–66.

9. Dickman D, Prieto P. Integrating systems theory and attachment theory: the use of radio communication to modify attachments in a patient with psychogenic vomiting. *Can J Psychiatry* 1987, 32:595-598.
 10. Saps M, Youssef N, Miranda A, Nurko S, Hyman P, Cocjin J, Di Lorenzo C. Multicenter, randomized, placebo-controlled trial of amitriptyline in children with functional gastrointestinal disorders. *Gastroenterology* 2009, 137:1261-1269.
 11. Tandon S, Malhotra S. Psychogenic vomiting in children: Different trajectories. *Indian Journal of Health & Wellbeing* 2017, 8:1072-1074.
-

Vinayak Koparde, Cumbria CAMHS, NHS, United Kingdom, Vinutha Ramesh, Dept. of Psychiatry, Maharishi Markandeshwar Institute of Medical Sciences and Research, Ambala, Preethi Anne Ninan, Nithya Poornima, Department of Clinical Psychology, NIMHANS, Bengaluru, Satish Chandra Girimaji, Department of Child and Adolescent Psychiatry, NIMHANS, Bengaluru.