



# A Case of Emetophobia Responding to Mirtazapine and Propranolol Treatment

## Introduction

Emetophobia (“phobia of vomiting and nausea” or “Specific Phobia- Other [Vomiting]” in Diagnostic and statistical manual of mental disorders-Fifth Edition [DSM-5]) is characterized by impairing, chronic phobic avoidance of nausea/vomiting as well as inordinate cognitive and autonomic responses when avoidance is not possible.<sup>1,2</sup> Patients may have elevated disgust sensitivity, a tendency to display gastrointestinal symptoms of anxiety as well as misinterpretation of those symptoms as catastrophic.<sup>2</sup> Data on pharmacological management of emetophobia among adolescents is limited with only 2 cases benefiting from selective serotonin reuptake inhibitors (fluoxetine and sertraline) while adults may also benefit from benzodiazepines.<sup>3-5</sup> Patients may apply to various medical specialty clinics for treatment and this may delay diagnosis and management. Here; we aim to present an adolescent with emetophobia and its management by mirtazapine and propranolol.

## Case

A 14 year-old female, high school junior applied to the department with complaints of “chronic nausea and occasional vomiting.” The complaints were present for the past 18 months, correlated with stress levels, started without a stressor and prevented her from going outside her home for the past 2 months. She avoided eating due to fear of vomiting and lost 3 kilograms within the past week. A pediatrician diagnosed post-nasal drip and prescribed her pseudoephedrine with no benefit. The father was previously diagnosed with panic disorder and received treatment. Mental status examination revealed elevated anxiety, reduced appetite, and preoccupations

with vomiting. Psychometric evaluations with Scale for Anxiety and Related Disorders in Children (SCARED), Emetophobia Scale (EmetQ-13), and Clinical Global Impressions (CGI) revealed scores of 56, 49, and 5; respectively (elevated anxiety, emetophobia, and severe symptoms).<sup>6-9</sup> Consultation with pediatrics and laboratory evaluations were normal. Therefore, she was diagnosed with emetophobia and generalized anxiety disorder and mirtazapine 7.5 mg/day was started. Fortnightly follow-up visits were initiated and mirtazapine was increased to 15 mg/day at the eighth week. SCARED, EmetQ-13, and CGI scores were 30, 25, and 4 (elevated anxiety and emetophobia, moderate symptoms). At the sixth month of treatment she was free of emetophobia and could dine out of home, although she started to experience panic attacks after a Coronavirus disease 19 infection. Therefore, mirtazapine was increased to 30 mg/day and propranolol 40 mg/day was initiated. At the last visit on 10th month of treatment SCARED, EmetQ-13, and CGI scores were 23, 16, and 3 (anxiety and emetophobia below threshold, mild symptoms).

## Discussion

Emetophobia may start in adolescence, occasionally after a distressing episode of nausea or vomiting and may accompany other anxiety disorders. It may be resistant to treatment and spontaneous remission is rare.<sup>1,2</sup> In accordance with the literature; complaints started after adolescence in our patient with accompanying generalized anxiety disorder and she initially applied to a pediatrician. Data on psychopharmacological management of emetophobia is limited and we initiated mirtazapine which is a noradrenergic-specific serotonergic antidepressant with reported benefits on cyclic vomiting, anxiety, and reduced appetite along with anti-emetic effects due to

5-HT<sub>3</sub> antagonism.<sup>10</sup> Propranolol was added later due to a family history of panic disorder and onset of panic attacks. This is the first report of mirtazapine and propranolol benefiting emetophobia in an adolescent and our report should be supported with future studies. The main limitation of this case was that no evaluations for gastrointestinal motility disorders were conducted.

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