

Case Report

Rimonabant-Induced Persistent Vomiting

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Abstract

Rimonabant is a selective cannabinoid-1 receptor blocker, which may reduce body weight and improve cardiometabolic risk factors in patients who are overweight or obese. Rimonabant is generally well tolerated but the most common drug-related adverse event reported in trials is nausea. We report a case of persistent vomiting associated with rimonabant therapy for reduction of body weight gain in a patient with paranoid schizophrenia, which resolved following discontinuation of medication and symptomatic treatment (German J Psychiatry 2013; 16(1): 49-50).

Keywords: Rimonabant; body weight; nausea; vomiting

Received: 28.01.2013

Revised version: 12.2.2013

Published: 24.7.2013

Introduction

Rimonabant is a selective cannabinoid-1 receptor blocker, which may reduce body weight and improve cardiometabolic risk factors in patients who are overweight or obese (Pi-Sunyer et al., 2006). Large randomized, placebo-controlled trials in nondiabetic and one in diabetic overweight and obese patients in the Rimonabant in Obesity and Related Metabolic Disorders (RIO) programme demonstrated its effectiveness in reducing body weight and abdominal obesity as well as improving glucose and lipid metabolism (Van Gaal et al., 2005; Despres et al., 2005; Pi-Sunyer et al., 2006; Scheen et al. 2006). Rimonabant is generally well tolerated but the most common drug-related adverse event reported in trials is nausea (11.2% for the 20 mg of rimonabant group vs. 5.8% for the placebo group). We report a case of persistent vomiting associated with rimonabant therapy for reduction of body weight gain in a patient with paranoid schizophrenia, which resolved following discontinuation of medication and symptomatic treatment.

Case study

Our patient was a 20-years-old unmarried female graduate who presented with eight years of continuous illness characterized by staying aloof, muttering to self, disturbed sleep and suspiciousness towards others regarding their intentions to harm her. She had no past or family history and had schizoid traits premorbidly. Mental status revealed depressed affect and prominent auditory hallucinations commenting on her actions. Physical examination revealed obesity with a body weight of 85 kilograms. A diagnosis of paranoid schizophrenia with obesity was made. She was started on haloperidol 10 mg/day and rimonabant 100 mg/day (for obesity) and advised physical exercise. After one month, her weight was reduced by two kilograms and psychotic symptoms improved, but she started complaining of nausea which had appeared soon after starting medications. As thyroid stimulating hormone (TSH) levels were raised (10 μ IU/dl), she was started on levothyroxine 50 μ g/day. After two months, her weight was reduced further to 79 kg and auditory hallucinations had improved significantly. However, vomiting had worsened considerably and started occurring daily.

On account of persistent vomiting, rimonabant was stopped and domperidone 10 mg/day was added. Within seven days, vomiting stopped completely. Subsequently, she maintained well on haloperidol and levothyroxine and TSH levels were within normal limits.

Discussion

In a meta-analysis (Christensen et al., 2007), patients given rimonabant had a 4.7 kg (95% CI 4.1–5.3 kg; $p < 0.0001$) greater weight reduction after 1 year than did those given placebo. In our case study, there was a reduction of two kilograms weight with rimonabant after only four weeks of treatment. Serum endocannabinoid levels are elevated in obesity (Engeli et al., 2005), which implies a role for CB1 activation in weight gain. Rimonabant selectively decreases the intake of drink and food products that are rich in carbohydrates and lipids, the intake of which are generally increased in obese patients, thereby suggesting that blockade of central cannabinoid system may alter the hedonic response associated with food intake and in effect decrease food ingestion (Ravinet Trillou et al., 2003).

Rimonabant is generally well tolerated but the most common drug-related adverse event reported in trials is nausea (11.2% for the 20 mg of rimonabant group vs. 5.8% for the placebo group). Considerable evidence implicates the endocannabinoid system as a neuromodulator of nausea and vomiting (Parker et al., 2009). Its use has fallen into dispute following accumulating evidence of depression, suicidality and other psychiatric symptoms with use of rimonabant, though further studies are required to clarify the issue (Leite et al., 2009).

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