A Case of Ropinirole-Induced Compulsive Behavior

To the Editor: Parkinson's disease is a neuropsychiatric condition. Dopamine agonists are used extensively in the treatment of Parkinson's. A retrospective review in 2009 of patients with Parkinson's disease reported a frequency of 13.2% for compulsive behavior including new-onset pathological gambling and hypersexuality after being started on therapeutic doses of pramipexole or ropinirole.[1] Several reports and reviews have been published on this topic. Here we present a case of new-onset compulsive behavior with the dopamine agonist ropinirole in a patient who presented in a mental health clinic setting.

Case report. Mr A, a 41-year-old white, married male veteran with a history of Parkinson's disease with cognitive impairment as well as *DSM-IV-TR* posttraumatic stress disorder and major depressive disorder, single episode, moderate, was referred to the mental health clinic by his primary care physician for management of his psychiatric symptoms. The patient reported that his depressive symptoms had been stable since he started treatment with venlafaxine 2 months earlier, but for the past few months he was having compulsive behavior, including intense sexual desires toward other women, and had started to gamble on scratchcards, on which he had lost $1,000 to $1,500 in a month. This was unusual for him, as he had a supportive and loving wife and had never gambled before. He had noted an increase in appetite (weight gain of 20 lb [9.1 kg]), endorsed that he had compulsive eating behaviors, and drank about a 20-pack of beer per day. He also described having nightmares and vivid dreams and endorsed having visual hallucinations in the form of shadows in the room on multiple occasions. This behavior had been causing stress in his marriage. He had no previous history of strokes, seizures, bipolar disorder, psychosis, impulse-control disorder, or drug dependence.

His psychiatric medications included venlafaxine 150 mg twice daily, zolpidem 10 mg at bedtime, and clonazepam 1 mg twice daily, and his Parkinson's disease medications included tablet carbidopa/levodopa 25 mg/250 mg every 3 hours, ropinirole 3 mg 3 times daily, entacapone 200 mg every 5 hours, and donepezil 10 mg at bedtime. Other medications were tramadol, losartan, flunisolide nasal inhaler, albuterol metered-dose inhaler, cetirizine, formoterol inhaler, and mometasone metered-dose inhaler.

Mr A informed us that, at his last visit, his neurologist had increased his ropinirole dosage from 1 mg orally twice daily to 3 mg orally twice daily, as he was experiencing dyskinesia, swallowing difficulty, gradual decline in memory, and worsening of his Parkinson's symptoms. Review of medical records confirmed that he indeed started having this weight gain and impulsive behavior within the first few weeks after the ropinirole dose was increased.

After conducting a literature search on ropinirole, we decided to discontinue the medication. Following discontinuation, the symptoms resolved completely, and Mr A started to have weight loss and did not have the urge to gamble; however, his Parkinson's motor symptoms reemerged. Thus, he was restarted on ropinirole at 0.5 mg orally twice daily for 1 wk and then increased to 1 mg orally twice daily, which he tolerated well without reemergence of his symptoms.

The appearance of symptoms on increasing the dose and then improvement with reducing the dose suggests a strong correlation between ropinirole and impulsive behavior. This case highlights the importance of awareness regarding drug-related psychiatric symptoms that may originate in the course of management of Parkinson's disease. Physicians who care for patients taking dopamine agonists should watch for and differentiate between conditions including drug-induced adverse effects from primary psychiatric disorders and work in collaboration with neurologists to manage these treatment-emergent adverse effects.

REFERENCE

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Harmit Singh, MD
harmitsingh@creighton.edu
Mary Theresa Veglia
Sriram Ramaswamy, MD

Author affiliations: Department of Psychiatry, University of Nebraska Medical Center/Creighton University, Omaha (Dr Singh); and Department of Psychiatry, Creighton University, Omaha (Ms Veglia and Dr Ramaswamy), Nebraska.
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