Impulsive Cross-Dressing in Parkinson's Disease Treated With Ropinerole

To the Editor: A 60-year-old man presented with an 8-year history of Parkinson's disease initially presenting with left-sided loss of dexterity. Over many years, his motor symptoms had remained stable on carbidopa/L-dopa 25 mg/100 mg three times daily, but, more recently, he had required the addition of ropinirole, 4 mg three times daily. Before referral in 2005, he had noticed a wearing-off effect between doses, and when "off," he would have problems with balance and a tendency to retropulsion. His ropinerole was increased to a maximal dose of 7 mg three times daily with good effect on motor symptoms.

Over the ensuing 3 years of follow-up there was a gradual deterioration in behavior. His partner initially expressed concerns over increased sexual appetite and sexual demands often resulting in aggressive outbursts. It was later revealed that he had been dressing in women's clothing for over 2 years. He had bought large quantities of women's clothing and had concealed them from his wife in the attic. He admitted experiencing sexual gratification from cross-dressing and would often masturbate. He had no premorbid history of cross-dressing, depression, or impulsive behaviors.

He was diagnosed with a cross-dressing impulse-control disorder and hypersexuality. After a reduction in ropinerole dose back to 4 mg three times daily, he has had complete resolution of impulsive cross-dressing and has not exhibited this behavior for over 1 year.

Discussion

Hypersexuality may affect between 2% and 10% of Parkinson's disease patients.[1] Hypersexuality is generally perceived to represent a preoccupation with sexual thoughts or excessive sexual demands. It may lead to the use of pornography, promiscuity, exhibitionism, paraphilias, sadomasochism, fetishism, and, sometimes, sexual assault. Cross-dressing may occur as part of the impulse control disorder spectrum in association with hypersexuality. In this patient, the behavior seemed inextricably linked to changes in his ropinerole dose; it was fully reversible after medication reduction.

Impulse control disorders have been linked with dopamine agonists, although studies have failed to show a particular drug susceptibility.[2] Clinical predictors include early Parkinson's disease onset, male gender, novelty-seeking behaviors, history of substance abuse, depression, and high impulsivity scores. Cross-dressing has been reported with the use of selegiline[3] but not with ropinerole.

Depletion of dopaminergic neurons within mesolimbic structures involved in stimulus-reward processing has been shown in Parkinson's disease. A carbon-11-raclopride PET study observed significantly higher dopamine release within the ventral striatum following L-dopa challenge in patients who were compulsive dopamine drug users versus those who were not, suggesting that ventral striatal sensitization to chronic dopamine may be important in compulsive drug use.[4]

Paraphilias in association with hypersexuality may complicate dopamine agonist treatment. The case highlights the idea that nonmotor symptoms of Parkinson's disease can be equally debilitating to the patient and caregivers and that Parkinson's disease should be considered a neuropsychiatric condition. Counseling patients and caregivers about the risk of impulse control disorders is paramount. Greater vigilance among health care professionals is needed, with good access to neuropsychology and psychiatric services. Dose reduction may be sufficient to abort behaviors, although use of antipsychotics (clozapine or quetiapine) may be beneficial.

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