

## Panic Attack-Like Episodes Possibly Induced by Pramipexole in a Patient With Young-Onset Parkinson's Disease

*To the Editor:* Pramipexole is a non-ergot dopamine receptor agonist that exhibits a high affinity for the D<sub>2</sub> and D<sub>3</sub> dopamine receptor subfamilies. It has been shown to be efficacious as a monotherapy in early-onset parkinsonism and as an adjunctive therapy for reducing motor complications in advanced Parkinson's disease (PD).<sup>1</sup> We report the case of a patient with young-onset Parkinson's disease (YOPD), who presented panic attack-like episodes that may have been induced by pramipexole.

### Case Report

"Ms. A," a 38-year-old patient, reported that at age 27 she developed daily sadness, anhedonia, psychomotor agitation, and suicidal ideation. At the time, she was treated with antidepressants, and her symptoms showed marked improvement. Since then, she has not had any episodes suggestive of psychiatric illness. At age 29, she developed bradykinesia, rigidity, and a tremor in her left arm. After extensive research to exclude other causes of parkinsonism, she was diagnosed with YOPD; treatment with L-dopa was immediately started, and the patient showed significant motor-symptom improvement. Her doses of L-dopa and carbidopa were increased gradually over the course of her treatment, and eventually reached 125 mg and 12.5 mg, respectively, four times a day. She had good symptomatic con-

trol until age 38, when she presented with motor fluctuations of off-period dystonia in her foot in the early morning. She was taking only L-dopa and carbidopa at the time. On examination, it was shown that she had a "pill-rolling" tremor, rigidity, and a dearth of movement in her left hand and leg, as well as mild postural instability. Treatment with pramipexole was prescribed at 0.125 mg three times per day as an add-on therapy. Approximately 1 hour after her first dose of pramipexole, the patient developed an episode of palpitations, shortness of breath, paresthesias, chills, dizziness, and a sense of impending death that lasted 30 minutes. These symptoms disappeared spontaneously, but she decided to withdraw the pramipexole. However, 1 week later, the pramipexole was reintroduced, and another similar episode occurred. These episodes disappeared after pramipexole withdrawal, and the patient had no further episodes during a 6-month follow-up period.

### Discussion

Dopamine-replacement therapies, which include the dopamine precursor L-dopa and dopamine agonists, have been shown to produce neuropsychiatric side effects. Impulse-control disorders, including pathological gambling, hypersexuality, binge-eating, compulsive buying, and punting (abnormal repetitive non-goal-oriented behaviors) may occur. Psychotic symptoms, including hallucinations, illusions, and delusions are also commonly associated with dopaminergic medications in patients with PD.<sup>2</sup>

Panic attack-like episodes associated with PD patients using dopamine agonists, such as pramipexole,

ropinirole, and, possibly, pergolide, have been previously reported by other authors.<sup>1,3</sup> Interestingly, a recent study suggested that pramipexole may be effective for treating depression in patients with PD.<sup>4</sup>

We report on a patient who presented with panic attack-like episodes, according to DSM-IV-TR criteria. Her episodes were possibly induced by pramipexole, which was prescribed to treat her PD. We believe this is a rare adverse effect associated with the use of this substance.

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