

## Paliperidone-Induced Obsessive Symptoms

*To The Editor:* The therapeutic effect of the atypical antipsychotic paliperidone is attributed to a combination of D<sub>2</sub> and postsynaptic 5-HT<sub>2A</sub> receptor antagonism,<sup>1</sup> which, in turn, exerts an inhibitory effect on the mesolimbic dopaminergic system.<sup>2</sup> Paliperidone also antagonizes  $\alpha_1$  and  $\alpha_2$ -adrenergic and H<sub>1</sub>-histamine receptors. It is indicated for the treatment of schizophrenia and manic or mixed episodes of bipolar disorder.<sup>1</sup> We report on a patient who benefited in terms of psychotic symptom reduction but developed severe obsessive thoughts.

### Case Report

A 32-year-old man suffering from paranoid schizophrenia was referred for excessive weight gain attributed to risperidone, resistant to a dietary regimen. The patient had a first episode with auditory hallucinations and persecutory delusions 8 years ago. He had been medicated with risperidone, and symptoms were well-controlled. After an unsuccessful reduction of risperidone, the patient was stabilized on 4 mg/day. A gradual switch to paliperidone 9 mg/day was tried. Positive symptoms, that is, prominent hallucinations or formal thought disorder, were adequately contained, but, after 2

months, the patient complained of uncontrollable, invasive thoughts of harming his parents, which had never been present before. The patient recognized the irrational nature of his thoughts, and these produced excessive anxiety that he could not manage. A switch back to risperidone led to full remission of obsessive thoughts in 2 weeks.

### Discussion

Paliperidone-induced obsessive-compulsive symptoms (OCS) have not been reported. De novo surfacing of OCS by atypical antipsychotics during schizophrenia treatment has been documented in numerous cases.<sup>3,4</sup> Pertinent hypotheses have been proposed, such as the following: 1) overt psychosis may mask OCS; 2) obsessions may represent a residual form of psychosis; 3) OCS and psychosis may be two discrete phenomena; and 4) obsessions may be adverse effects of antipsychotic medication.<sup>5</sup> Although underlying pathophysiology is not well understood, 5-HT<sub>2</sub> receptor antagonism, particularly in the basal ganglia, seems to play a key role in the emergence of OCS in schizophrenic patients. It is noteworthy that, in our case, obsessions had never been previously present, although the patient was on risperidone for 8 years. These symptoms surfaced when paliperidone, an active metabolite of risperidone, was administered, which suggests a potential different mechanism of

action in the cortico-striato-thalamic loop. The observation that paliperidone may induce OCS corroborates the key role of the interplay of serotonin and dopamine in their emergence in schizophrenic patients.<sup>2</sup> Monitoring of patients on paliperidone is needed because of the possibility of their developing OCS.

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