A Case of Atypical Antipsychotic–Induced Somnambulism: A Class Effect

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Somnambulism has been reported with the use of atypical antipsychotics.[1,2] However, we have found no reports of recurrent somnambulism in the same patient as a result of using different antipsychotics from this class. We present a case of somnambulism induced in a bipolar patient by olanzapine, quetiapine, and the new atypical antipsychotic asenapine.

Case report. Mr A, a 52-year-old man with a bipolar disorder, was admitted to the psychiatric emergency department in a manic episode on November 2011. He also had a diagnosis of metabolic syndrome. He had taken valproate 3,000 mg/d and carbamazepine 1,000 mg/d for the past year before the admission. In the emergency department, asenapine was added to his treatment and was increased gradually over 2 weeks to 15 mg/d. After 2 weeks with this dose, he was observed sleepwalking: for 45 minutes, he wandered around his room, tidied it, organized his clothes, and then went back to sleep. Mr A was very disturbed by the event, and requested to stop taking asenapine immediately. As the treatment was ceased, the sleepwalking stopped.

Mr A had no history of somnambulism prior to taking antipsychotic medications. Sleepwalking episodes were first reported in his case on August 2000 with the addition of olanzapine 15 mg/d to his treatment with lithium 1,800 mg/d. A year before his current admission, similar episodes occurred again, when quetiapine 600 mg/d was added to the mood stabilizers he was taking, valproate and carbamazepine. In both cases, the sleepwalking subsided immediately after the treatment with the antipsychotic medication was stopped. A computed tomography scan and an electroencephalogram, which were preformed after those episodes, did not show any pathology. Other antipsychotic medications, such as risperidone and ziprasidone, did not cause sleepwalking but were not efficient at preventing manic episodes.

Sleepwalking as a result of treatment with atypical antipsychotics has been reported in the last decade since this group of medication was introduced.[1,2] However, this is the first time, to our knowledge, that 3 different atypical antipsychotic medications have caused somnambulism in the same patient, and this occurrence implies a class effect of this group. It is also the first time that sleepwalking has been reported as a result of the new antipsychotic medication asenapine.

Somnambulism arises during slow-wave sleep (stages 3–4 of non–rapid eye movement sleep), and it reflects impairment in the normal mechanism of arousal. Its lifetime prevalence in patients with bipolar disorder is 2–3 times higher than in the general population.[3] But these differences might be related to medications the patients were taking. It was suggested in the past that olanzapine can significantly increase slow-wave sleep by the blockage of serotonin 5-HT_{2C} receptor, and through this mechanism increase the risk for somnambulism.[4] Asenapine, similar to olanzapine, has a very high affinity to this receptor.[5] Contradicting this hypothesis is the fact that risperidone and ziprasidone, which possess a relatively high affinity to the 5-HT_{2C} receptor, did not cause somnambulism in our patient, whereas quetiapine with a low affinity to this receptor did. Olanzapine, quetiapine, and asenapine share a relative high affinity to the H_1 receptor compared to risperidone and ziprasidone. No evidence exists in the literature regarding somnambulism induced by H_1 antagonists, although it is well known that the sedative component of those medications involves this receptor. The mechanism through which atypical antipsychotics trigger sleepwalking is yet to be elucidated. However, it is important to be aware of this possible side effect, as it might endanger the patient in certain cases, not less than the psychotic episode itself.

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Drug names: asenapine (Saphris), carbamazepine (Carbatrol, Equetro, and others), lithium (Lithobid and others), olanzapine (Zyprexa and others), quetiapine (Seroquel and others), risperidone (Risperdal and others), ziprasidone (Geodon and others).

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