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Low dose Quetiapine in the Treatment of an Adolescent with Somnambulism: A Case Report

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Abstract

Somnambulism or sleepwalking is a sleep disorder of arousal. Compared to in adults, pediatric and adolescent sleep disorders is still under-researched and poorly described. We report the successful use of low dose quietiapine, an atypical antipsychotic, in the treatment of a 15-year-old Indian male who presented with significant somnambulism. To the best of our knowledge, this is the first report on the use of quetiapine for the treatment of somnambulism in the literature. The presence of high voltage delta waves in sleepwalkers has been offered as a possible explanation for the patho-physiology of sleepwalking Quetiapine has been reported to decrease brain delta activity, and we postulate that this may be the mechanism on how it was beneficial for our patient.

Introduction

Sleepwalking or somnambulism is a form of parasomnia that manifests with motor or verbal activity during sleep. Unlike in adults, pediatric and adolescent parasomnia is still poorly studied as the physiology of sleep in children is complicated by progressive developmental changes that make the distinction between abnormal and normal sleep difficult (1).

Somnambulism is usually self-limiting and do not require intervention except in severe cases where the symptoms are bothersome or where there is a high risk of injury (2). We report a case of an adolescent who was successfully treated with a low dose quetiapine for somnambulism. To the best of our knowledge, there is no report in the literature on the use of quetiapine, an atypical antipsychotic, for the treatment of somnambulism. Paradoxically however, there are two reports of somnambulism induced by the use of quetiapine in subjects with ADHD (3).

A 17-year-old Indian boy presented with a history of somnambulism beginning from a very young age. He used to experience episodes of sleepwalking infrequently, about once every 2 to 3 months since the age of 6 years. However, his symptoms worsened since the sudden death of his father about a year prior to his first consultation, where sleepwalking episodes would occur about two to three times a week. He was brought in for consultation by his concerned mother as he had opened the front door of his house during several sleepwalking episodes. Twice, he was even found sleeping on the road in the front of their house. The patient did not have any history of any other psychiatric conditions or seizures, and neither were they similar history in his family.

The patient was started on 25 mg of quetiapine prior to bedtime, and the episodes of somnambulism immediately ceased. Quetiapine was continued at this same low dose and no recurrence of somnambulism was reported on subsequent follow-ups in the next 8 months until now. The patient did not report any daytime somnolence or any other adverse drug reaction while on this low dose of quetiapine.

Discussion

Quetiapine is a new generation atypical antipsychotic, which has its main indications in the treatment of schizophrenia and bipolar disorders, albeit with far higher doses than was given to this patient. Though it possesses moderately sedative properties, its role in sleep disorders is still not well established. Findings from clinical trials and observations in case reports have revealed possible beneficial effects of quetiapine in areas of total sleep time, sleep efficiency, percentage of stage 2 sleep and subjective sleep scores (4, 5). The demonstrated presence of high voltage delta waves in sleepwalkers, suggesting an immature central nervous system, could be a possible physiological explanation for sleepwalking (6). This would explain how benzodiazepines and

tricyclic antidepressants, both of which suppresses delta waves, work in somnambulism. It has been reported that quetiapine does decrease delta activity in EEG monitored subjects (7). This may very well serve as possible explanation on why our reported case responded very well to quetiapine. Quetiapine was recently FDA approved for both the treatment of schizophrenia and mania in adolescents, where its safety was established from 4 studies (8). Side effects occurring ≥ 5% and greater than placebo in these trials of were somnolence, dizziness, fatigue, increased appetite and weight, nausea, vomiting, dry mouth and tachycardia. However these trials studied doses of 400 mg-800 mg, whereby our patient was prescribed a dose of only 25 mg. This would explain the absence of side effects in this patient. However further experience and research is needed to determine if quetiapine can be an effective and safe option in the treatment of somnambulism.

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