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Increased hypersexuality associated with paliperidone in a patient with schizophrenia

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Abstract

Antipsychotics are known to decrease dopamine levels in the ventral tegmental area of the brain leading to decreased libido and onset of sexual dysfunction, according to research. However, some research has shown a paradoxical increase in libido in patients on certain antipsychotics, such as aripiprazole and risperidone. Currently, there is only a single case report of increased hypersexual behaviors, such as unusually frequent masturbation and masturbation in inappropriate settings, after stabilization on long- acting paliperidone. We present a case of a patient developing hypersexuality after receiving paliperidone long-acting injectable antipsychotic. This report will present the case and discuss possible etiology of hypersexuality in a patient receiving paliperidone.

Keywords

hypersexuality; masturbation; antipsychotics; paliperidone.

Introduction

Antipsychotic medications have a long history of usage to help decrease exacerbation of schizophrenia symptoms. Antipsychotic class medications have been shown to decrease dopamine levels in various pathways within the brain, which in turn leads to decreased sexual behavior. There have been reports showing paradoxical increase in sexual behavior with antipsychotics such as aripiprazole [1] and risperidone [2]. It has been suggested that an increase in sexual behavior is due to the mechanism of action as well as receptors affected by these antipsychotics. A PubMed search revealed a single case report in regards to paliperidone and its effect on sexual behavior [3]. Paliperidone works as an antagonist of brain dopamine D2 and serotonin 5-HT2A receptors [5]. We report a case of a 30-year-old male patient with a history of psychiatric illness that developed increasing libido and sexually inappropriate behavior after treatment and stabilization on paliperidone. This case contributes to the minimal literature describing paradoxical

increases in libido and sexual behavior with antipsychotic medication treatment.

Case Report

Mr. O is a 30-year old Caucasian male with a past medical history of schizophrenia and poor medication adherence who presented to the psychiatric emergency department with an acute episode of psychosis. Previously, he had been discharged from an inpatient hospital after stabilizing on oral risperidone, then abruptly discontinued this medication after he returned home with his mother. He became aggressive, stole his mother's vehicle, and ultimately was involved in a solo vehicle crash. He was transported via ambulance to the emergency department for evaluation. After medical clearance, he was transferred to an acute inpatient psychiatric ward for stabilization. His symptoms included delusions, auditory hallucinations, suicidal ideation and general psychiatric decompensation. Most notably, he had not exhibited hypersexual behaviors on any prior hospitalization.

Mr. O was restarted back on risperidone, which was increased to 6 mg daily, in divided doses. He continually engaged with staff in a hostile, aggressive fashion, for which he was started on valproic acid, which was increased to 1500 mg daily, in divided doses. Two weeks after admission, Mr. O agreed to a trial of paliperidone long-acting injectable, due to his history of medication noncompliance. Soon after the initial intramuscular paliperidone injection of 234 mg was given, Mr. O began engaging in inappropriate sexual behavior that involved touching female staff, as well as repeatedly showing his genitals at the nursing station. This behavior continued as the second loading injection of 156 mg was given. Our treatment team added lithium carbonate, and increased this medication to a level of 0.8 mmol/L. While Mr. O stopped displaying his genitals and touching staff, he was began masturbating in public areas with increasing frequency. Mr. O was found masturbating in the day room, in front of patients and staff. A few days after receiving the second dose of the paliperidone, Mr. O joined a group exercise class with over ten people in the room and masturbated to completion. When the treatment team asked about the incident, he expressed some guilt over the public displays of sexual behavior, but repeatedly exclaimed how he could no longer help himself.

Discussion

Under most circumstances, treatment with antipsychotic agents leads to a decrease in libido [6]. There are some case reports of aripiprazole inducing hypersexuality, but only one case reports exist with the long- acting paliperidone [3]. It is possible that there is a similar etiology in paliperidone induced sexual behavior as there is with aripiprazole. As Mr. O's symptoms of psychosis abated, he began to demonstrate a steady increase in sexually inappropriate behavior, and a steady decrease in his ability to maintain sexual impulse control. It has been elucidated in case reports a connection between aripiprazole and increased sexual behavior, but the exact mechanism of increased libido is not known. This is the second case reported of a patient displaying hypersexuality after receiving paliperidone. Future research is warranted to define the possible mechanism of hypersexual disorders in patients on second-generation antipsychotics, in particular paliperidone due to its broad neuropharmacological effects.

Conclusion

This case illustrates the possible unintended and unforeseen side effect of hypersexuality in treating schizophrenia with paliperidone long-acting injectable. It may also contribute to further understanding the association between hypersexuality and paliperidone that warrants further investigation. The case of Mr. O can be added to the broader growing knowledge of hypersexual side effects seen among other second generation antipsychotics. Although the exact mechanism may not be known at this time, this case serves to indicate that mechanism should be identified. By understanding the exact cause of the hypersexuality, we can better treat patients with second generation antipsychotics in the future.

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