Iloperidone-induced ejaculatory dysfunction: A case series

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INTRODUCTION

Prevalence of sexual and reproductive function side effects of atypical antipsychotics is 18–96%. The abnormal ejaculation of semen is a typical and infrequent side effect of some alpha 1-adrenoceptor antagonists.

Iloperidone, a new dopamine Type 2 and serotonin Type 2A antagonist similar to risperidone, provides better efficacy with lesser extra-pyramidal side effects. In addition, it also antagonize alpha 1-adrenergic receptor and alpha-2C receptors. Limited data is available for iloperidone-induced ejaculation dysfunction. This article features five schizophrenic patients which developed retrograde ejaculation during treatment with iloperidone. The ejaculatory dysfunction following treatment with iloperidone could be postulated due to blocking of alpha 1-adrenergic receptor.

Key words: Alpha 1-adrenergic receptor, ejaculation, iloperidone

CASE REPORTS

Case 1
A 34-year-old male, diagnosed case of schizophrenia - paranoid type, nonhypertensive, nondiabetic, was on haloperidol and olanzapine. Iloperidone was started and the dose was increased to 8 mg in two divided doses. After 2 weeks treatment, the patient complained of reaching the climax on masturbation but not ejaculating. On enquiry, the patient did not give any history of any illnesses, past surgery, or any medications which could be responsible for his symptoms. On physical examination, patient showed no signs suggestive of any genitourinary lesions or malformations. Other investigations revealed the absence of any pathological conditions responsible for retrograde ejaculation. Patient was advised to stop iloperidone momentarily to confirm the causality and asked the patient to follow-up after 2 weeks. On next follow-up,
patient did not complain of ejaculation dysfunction and achieved orgasm with semen emission.

Case 2
A 29-year-old nonhypertensive, nondiabetic male, diagnosed case of paranoid schizophrenia was started treatment with olanzapine. Treatment was switch to iloperidone because of sedation and weight gain induced by olanzapine. The dose of iloperidone was gradually titrated up to 6 mg in two divided doses. After 2 weeks, the patient complained of reaching the climax on masturbation and not ejaculating. On detailed history, the pathological and postsurgical causes for retrograde ejaculation were ruled out. Olanzapine was started again after stopping iloperidone. On follow-up after 2 weeks, patient did not experience dry orgasms anymore.

Case 3
A 19-year-old male, diagnosed case for undifferentiated schizophrenia was on trifluoperazine and amisulpride. The patient did not show good improvement with the treatment; hence, he was started on iloperidone. The dose was increased gradually to 4 mg in two divided doses. At 2 weeks follow-up visit, he complained of reaching the climax on masturbation and not ejaculating. His history and physical examination revealed no pathological and surgical causes for his complaints. Iloperidone was stopped and other antipsychotic was started, and patient was asked to follow-up after 2 weeks. On follow-up, patient had normal orgasms with ejaculation.

Case 4
A 30-year-old male was diagnosed as paranoid schizophrenia and was prescribed haloperidol. Patient did not show good improvement with the treatment; hence, he was started on iloperidone. The dose given was 2 mg in two divided doses. On the 3rd day, he complained of reaching the climax on masturbation but not ejaculating. The pathological and surgical causes were ruled out after detailed history, examination, and investigations. The patient was advised to stop iloperidone and follow-up after 2 weeks. On follow-up, patient did not experience dry orgasms anymore.

Case 5
A 32-year-old male was diagnosed with paranoid schizophrenia. He was started on olanzapine. Because of poor efficacy, he was switched to iloperidone 8 mg two divided doses. During follow-up visit after 2 weeks, he complained of reaching the climax on masturbation but not ejaculating. On reviewing the patient’s medical history and examination, there were no pathological and surgical causes detected. Assuming the cause to be iloperidone, the patient was advised to discontinue iloperidone and follow-up after 2 weeks. On follow-up, patient was not complaining of dry orgasms anymore.

DISCUSSION
Ejaculatory disorders are common among patients with medications used to treat psychiatric ailments such as antidepressants and antipsychotics such as risperidone. Other common etiological factors include diabetes, antihypertensive medications such alpha blockers, prostate tumors and surgeries such as transurethral prostate resection. Functional alpha 1A-adrenoceptors, are essential for the physiological contraction of the vas deferens and hence for ejaculation. Abnormal ejaculation occurring during treatment with a1-adrenoceptor antagonists also represents retrograde ejaculation. Tamsulosin, alpha 1A-adrenoceptor antagonist has been shown to produce decreased ejaculate volume without any detection of sperm in midstream urine samples.

Approximately, 25 patients both males and females suffering with schizophrenia were treated with iloperidone over a period of 3 months. Of these patients, 5 patients voluntarily complained of distress due to nonejaculation. The patients reported above were between the age group 19 and 35 years and did not have any known factors linked to ejaculatory disorders. The ejaculatory disorders in these patients appeared mostly after 2 weeks of initiating iloperidone treatment. After stopping iloperidone, these patients reported normal ejaculation in follow-up visits 2 weeks later.

Iloperidone has a high affinity for alpha 1 receptors, which could explain the ejaculation disorders in all of the above five cases. There is limited data which report any ejaculatory dysfunction with the use of iloperidone. Since there is mention of retrograde ejaculation with risperidone which has similar receptor binding profile, the ejaculatory disorders in these cases can be attributed to treatment with iloperidone.

CONCLUSION
The ejaculatory dysfunctions following treatment with iloperidone could be postulated due to the blocking of alpha 1-adrenergic receptor.

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Conflicts of interest
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