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CASE REPORT

TREATMENT OF ILOPERIDONE INDUCED EJACULATORY DYSFUNCTION WITH IMIPRAMINE

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INTRODUCTION: Prevalence of sexual and reproductive function side effects of atypical antipsychotics is 18 to 96%contributingto non-compliance in 50% of treated patients.[1] The abnormal ejaculation of semen is a typical and infrequent side effect of some α1-adrenoceptor antagonists. Iloperidone, a new dopamine type 2/serotonin type 2A antagonist provides better efficacy with less extra-pyramidal symptoms than D2 receptor antagonist antipsychotics. Iloperidone additionally has high affinity for alpha1 receptors and moderate affinity for alpha-2C receptors.[2,3] Despite this knowledge, there is limited data regarding retrograde ejaculation caused due to use of Iloperidone. This article features three clinical cases of schizophrenia experiencing retrograde ejaculation after therapy with Iloperidone, treated successfully with Imipramine.

KEYWORDS: Ejaculation, alpha (α) 1-adrenergic receptor, Iloperidone, Imipramine.

CASE 1: A 38 year old male, diagnosed case of Schizophrenia – paranoid type, non-hypertensive, non-diabetic, was on haloperidol and olanzapine. Patient was non- compliant and unwilling to take haloperidol and olanzapine. Iloperidone was started and the dose was increased to 8 mg in two divided doses. After two weeks treatment, the patient complained of reaching the climax on masturbation but not ejaculating. On enquiry, 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 absence of any pathological conditions responsible for retrograde ejaculation. Patient was prescribed Tab Imipramine 25 mg 1 tablet HS for one week, which was increased to 50mg HS in the second week. On next follow up, patient did not complain of ejaculation dysfunction and achieved orgasm with semen emission.

CASE 2: A 29 year old non-hypertensive, non-diabetic 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 two weeks, the patient complained of reaching the climax on masturbation and not ejaculating. On detailed history, the pathological and post-surgical causes for retrograde ejaculation were ruled out. Imipramine was started and increased to 50 mg HS. 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 trifluperazine and amisulpiride. 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 two weeks follow up visit, he complained of reaching the climax on masturbation and not ejaculating.

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His history and physical examination revealed no pathological and surgical causes for his complaints. Iloperidone was continued and Imipramine was started and patient was asked to follow up after two weeks. On follow up, patient had normal orgasms with ejaculation.

DISCUSSION: Ejaculatory disorders are common among patients with medications used to treat psychiatric ailments such as antidepressants[4] and antipsychotics such as Risperidone.[5] Other common etiological factors include diabetes, antihypertensive medications such alpha blockers, prostate tumors and surgeries such as transurethral prostate resection. Functional a1 A-adrenoceptors, are essential for the physiological contraction of the vasdeferens and hence for ejaculation. Abnormal ejaculation occurring during treatment with a1-adrenoceptor antagonists also represents retrogradeejaculation.[6] Tamsulosin, α 1A – adrenoeceptor antagonist has been shown to produce decreased ejaculate volume without any detection of sperm in midstream urine samples.[7]

The patients reported above were between the age group 19 to 35 years and did not have any known factors linked to ejaculatory disorders. The ejaculatory disorders in these patients appeared mostly after two weeks of initiating Iloperidone treatment. This symptom also regressed after giving Imipramine, which is a noradrenergic reuptake inhibitor. Iloperidone has high affinity for alpha1 receptors, which could explain the ejaculation disorders in all of the above three cases. There is limited data which report any ejaculatory dysfunction with the use of Iloperidone.[8] Since there is mention of retrograde ejaculation with resperidone which has similar receptor binding profile, the ejaculatory disorders in these cases can be attributed to treatment with Iloperidone.

Imipramine, a tricyclic antidepressant helps to close the bladder neck and converts retrograde ejaculation to ante grade ejaculation.[9] Ochsenkuhn et al,[9] showed that imipramine is an effective and safe treatment to re-establish ante grade ejaculation in patients with retrograde ejaculation following retroperitoneal surgery. In another study by Kamischke A et al,[10] it was found that imipramine was significantly better than pseudo ephedrine and ephedrine in treatment of retrograde ejaculation. This effect of Imipramine could be attributed to its property of inhibiting the reuptake of nor - adrenaline at synaptic junction.

CONCLUSION: Iloperidone can be associated with ejaculatory dysfunction due to its alpha 1A adrenoceptor blocking property which can be effectively treated with Imipramine.

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