

Spontaneous ejaculation induced by duloxetine

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ABSTRACT

Sexual dysfunctions such as diminished libido, erectile dysfunction, arousal problems, or delayed orgasm are common side effects of antidepressant medication. However, spontaneous ejaculation is a rare side effect caused by antidepressants. Several cases of spontaneous ejaculation have been reported about escitalopram, venlafaxine and reboxetine in the literature. In this paper, a 46-year-old man who developed spontaneous ejaculation with duloxetine is discussed. (Anatolian Journal of Psychiatry 2016; 17(Suppl.3):14-16)

Keywords: spontaneous ejaculation, duloxetine, antidepressant

Duloksetine bağlı gelişen spontan ejakülasyon

ÖZ

Sertleşme işlev bozukluğu, uyarılma sorunları, libido azalması veya orgazm gecikmesi gibi cinsel işlev bozuklukları antidepresan tedavinin sık görülen yan etkileri arasında yer almaktadır. Ancak, antidepresanlara bağlı spontan ejakülasyon nadir bir yan etkidir. Bu güne kadar essitalopram, venlafaksin ve reboksetin kullanımına bağlı spontan ejakülasyon olguları bildirilmiştir. Bu yazıda duloksetinle spontan ejakülasyon gelişen 46 yaşındaki bir erkek olgu ele alınacaktır. (Anadolu Psikiyatri dergisi 2016; 17(Ek.3):14-16)

Anahtar sözcükler: Spontan ejakülasyon, duloksetin, antidepresan

INTRODUCTION

Duloxetine is a potent dual reuptake inhibitor of serotonin and norepinephrine (SNRI) with comparable affinities to both transporter sites.¹ It is widely used for treatment of major depressive disorder (MDD), generalized anxiety disorder (GAD), and several chronic pain conditions.² Duloxetine has sexual side effects as well as other antidepressants. Although, duloxetine is less likely causes sexual dysfunction compared to other antidepressants,³ it has more sexual adverse events in men than women.⁴ Spontaneous ejaculation is a rare adverse event caused by antidepressants.⁵ There are several reports of spontaneous ejaculation due to escitalopram, venlafaxine and reboxetine.^{5,9,10} In this case we aim to report a patient with spontaneous ejacula-

tion with duloxetine throughout a year.

CASE

A 46-year-old man was referred to psychiatry clinic for repetition of his prescription. He was on duloxetine 60 mg/day. He was prescribed duloxetine one year ago when he admitted to a psychiatry clinic with anhedonia, sleep disturbance, lack of appetite, suicidal thoughts, ruminations, pain in all over the body, diarrhea and constipation, anxiety, palpitation. He was diagnosed with MDD. Duloxetine 30 mg/day initiated and increased to 60 mg/day after one month. Patient described that spontaneous ejaculation started after increasing duloxetine to 60 mg/day. It was happening every day, mostly after micturition, occasionally after defecation without sexual

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arousal. Additionally patient was complaining about loss of sexual arousal. Interestingly he was experiencing this side effect almost throughout a year without any psychiatry visit. During the evaluation of the patient in our clinic we thought the ejaculation may be related with duloxetine and we offered patient to stop the medication in this regard. We stopped medication with tapering. Duloxetine treatment discontinued, and a week later spontaneous ejaculation stopped.

DISCUSSION

Sexual dysfunctions such as diminished or absent libido, erectile dysfunction, ejaculation problems, arousal difficulties, decreased lubrication, delayed orgasm and anorgasmia are common side effects during the use of antidepressant medications.⁶ Unfortunately there is no antidepressant drug without sexual side effect. The reported incidence of sexual dysfunction varies between studies, thus it is difficult to find out the exact incidents or prevalence. In a study investigating prevalence of sexual side effects, Rothschild reported that 40% of patients taking antidepressants developed sexual dysfunction.⁷ Montejo et al. in a multicenter prospective study, reported overall incidence of sexual dysfunction as 59.1% among 1022 patients.⁸

Antidepressants have the potential to affect all phases of sexual activity like desire, arousal, orgasm, and ejaculation. Serotonergic nerve terminals target norepinephrine and dopamine pathways (both of these neurotransmitters have an important role in the desire and arousal phases of the sexual activity) and inhibit their activity.⁸ The mechanistic aspects of sexual function (orgasm and ejaculation) is regulated by the autonomic nervous system and utilizes acetylcholine (parasympathetic and sympathetic systems) and norepinephrine (sympathetic system).¹²

Several antidepressants are reported to cause spontaneous ejaculation. Belli et al. reported a case of a 43-year-old man having spontaneous ejaculation during micturition, after treatment with escitalopram.⁹ O'Flynn reported a case of reboxetine induced spontaneous ejaculation with a 39-year-old man,⁵ furthermore 48-year-old man who experienced spontaneous orgasm with venlafaxine and citalopram was reported by Yanik.¹⁰ Nevertheless, cases of spontaneous ejaculation with antidepressants are reported, the exact mechanism of spontaneous ejaculation remains unknown. Sympathetic system

regulates ejaculation latency, spontaneous ejaculation can occur by reducing ejaculatory latency time.¹¹

Median forebrain bundles, preoptic nuclei, anterior thalamic nuclei and many neurotransmitters including serotonin (5-HT), dopamine, oxytocin, γ -aminobutyric acid (GABA), adrenaline, acetylcholine and NO are involved in the regulation of ejaculation. 5-HT has a primary role in ejaculation, whereas noradrenaline mediates the spinal centers for seminal emission, ejaculation and closing bladder neck during ejaculation to prevent retrograde ejaculation.¹² Sympatholytic drugs like antihypertensives, antipsychotics and SSRIs, medical conditions as spinal cord injuries, sympathectomy, diabetic autonomic neuropathy may cause retrograde ejaculation and prolonged or absent ejaculation.⁵

Some studies have confirmed that selective serotonin reuptake inhibitors (SSRIs) suppress sympathetic nervous system (SNS) activity, especially norepinephrine release and vascular nerve and sympathetic muscle firing. Both SSRIs and SNRIs have an enhancement effect on serotonin, which may lead inhibition of norepinephrine and suppress SNS activity. Yet, SNRIs directly facilitate norepinephrine and this may counteract this inhibitory effect.¹³⁻¹⁵

As a dual effective antidepressant, duloxetine may cause spontaneous ejaculation with noradrenergic pathways. Spontaneous ejaculations without sexual arousal are reported with noradrenergic drugs such as atomoxetine, reboxetine, milnacipran, zotepine and nefazodone, mostly after micturition or defecation and after the drug discontinuation, all of the patients recovered.¹⁶ We believe in our case noradrenergic effects of duloxetine caused this rare side effect. Consistent with previous case reports, spontaneous ejaculation occurred after micturition and defecation and stopped after discontinuation of duloxetine in our case. As known compliance to antidepressants is reported to be %44,¹⁷ other interesting point is that, patient continued taking medication in presence of this side effect.

Sexual dysfunction is a common side effect of antidepressants and can have considerable impact on the patient's sexual life, quality of relationships and so life quality. It can cause noncompliance with antidepressant treatment thus a potential for relapse of symptoms. Patients tend to be shy to express sexual side effects during psychiatric interview. Therefore, clinicians should make sexual assessment as a routine.

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