

Escitalopram Induced Priapism

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Abstract

Priapism, a rare but potentially dangerous condition has been linked with numerous psychotropic agents. Trazodone is already well known for this side effect, followed by antipsychotics. In last two decades there have been few individual reports of SSRI induced priapism. Escitalopram a relatively new selective serotonin reuptake inhibitor (SSRI) is becoming widely administered. We report here on the first instance to our knowledge, a case of priapism which occurred following use of Escitalopram. Thus, this case highlights need for clinicians to become aware of this association and its subsequent severe morbidity.

Keywords: SSRI, escitalopram, priapism

Introduction

Priapism is a pathologic condition characterized by penile erection that persists beyond or is unrelated to sexual stimulation¹. If not treated promptly it is associated with long term devastating consequence such as impotence, gangrene of penis or urinary retention. Literature shows drug induced priapism accounts for 20-40% of cases. Commonly it's associated with three groups of medicines; antipsychotics, antidepressants and antihypertensives².

Pathophysiologically, priapism may be categorized into either a high-flow state, related to excessive arterial engorgement of the corporal bodies of the penis, or a low-flow state, resulting from the failure of blood entrapped within the corporal bodies to adequately drain. Low-flow priapism is the more common of the two states. High-flow priapism is rare and is generally found in the setting of penile or perineal trauma with the formation of an arteriovenous shunt^{1,2}.

Medications have been well documented in the literature for causing, low flow priapism^{2,3}. Priapism, particularly when associated with a low-flow state, should be recognized and treated promptly. As failure of corporal drainage progresses, local hypoxia, acidosis and ischaemia occur. This results in subsequent fibrosis and contraction of

the erectile tissue within the corpora cavernosa, ultimately leading to impotence³.

Mechanism for SSRI-induced sexual dysfunction as a whole is still unknown, especially considering SSRI induced priapism. Although SSRIs are relatively selective for the serotonergic system, they affect other neurotransmitter systems as well⁴. Thus, in literatures Fluoxetine, Paroxetine and Sertraline induced priapism have been hypothesized due to their antiadrenergic, anticholinergic and antidopaminergic effects^{5,6}. Literatures have hypothesized even the direct role of serotonin by inhibiting the production of Nitric Oxide which is a key factor for penile erection^{3,7}.

Escitalopram a novel SSRI, considered a quintessential SSRI, however its association with priapism as shown in the following case warrants further evaluation⁸.

Case Report

Mr. A, 31 years old male was seen in surgery ward. Psychiatric evaluation revealed, Mr. A had been diagnosed as a case of Recurrent Depressive Disorder since 8 years and was on treatment. He had had around 4 depressive episodes till date. The most recent episode was around 4

months back for which he was prescribed Sodium Valproate and Fluoxetine by a private Psychiatrist. Within 15 days of initiation of Fluoxetine, due to its severe gastrointestinal side effects it was changed to Escitalopram. Following intake of Escitalopram, Mr. A noticed having painful erection of penis without sexual stimulation lasting less than an hour. It used to occur once in 5 to 6 days interval. Pain was not severe and it subsided itself therefore patient did not consult a doctor. Patient had never experienced erectile abnormalities prior. He had no history of perineal trauma, medical illnesses (such as sickle cell disease, diabetes, hypertriglyceridemia, malignancies, or infections), use of alcohol or other substances, or medications for the treatment of erectile dysfunction.

However, 10 days prior to admission in surgery ward, Mr. A similarly had an attack of painful erection of penis which this time did not subside within an hour, but continued for 18 hours along with rapid swelling and bluish discoloration of penis after which he landed up in Emergency room.

Mr. A was admitted to the Urology unit. Routine hematological and biochemistry investigation was within normal limit. Emergency penile Doppler study reported ischaemic slow flow type priapism. Therefore, emergency proximal b/l cavernose spongy shunt were performed with evacuation of organized clots.

Discussion

This case demonstrates important issues. To our knowledge, this is the first case of priapism in a patient who was taking Escitalopram. In absence of other potential causes and the onset of priapism having clear temporal association with initiation of escitalopram, this strongly suggests priapism was related to use of Escitalopram. Even Naranjo algorithm determined a probable association between escitalopram and priapism⁹. Although the exact mechanism of escitalopram induced priapism is not clear, few reports have been already published regarding its potentiality to cause other sexual dysfunctions^{10,11,12}.

Escitalopram a newer SSRI is becoming widely administered for the treatment of depression and anxiety disorders. Therefore clinicians should be aware of this potential risk and need to discuss the side effect while initiating therapy. Further, the patient in this case had bouts of short lasting prolonged erections prior to ER visit. Literature reports as many as 50% of patients presenting with priapism during psychotropic treatment have a prior history of prolonged erections as it was in this case². So it is essential to enquire patients about the prior occurrence of prolonged erections to avoid long term complications. In addition, there is an estimate that around 40-50% of

patients who developed priapism had become impotent even after surgical interventions therefore it needs immediate treatment¹³.

Lastly, drug induced priapism accounts to major cause of priapism. Available literature has indicated drug-related causes accounts to 15 to 41% of total cases². Though antidepressants are considered to be less implicated except for trazodone, there are upcoming case reports of priapism in patients managed with selective serotonin reuptake inhibitors^{5,6,14}. Selective serotonin reuptake inhibitors (SSRIs) are frequently prescribed nowadays as they are better tolerated¹⁵. Perhaps the most important consideration therefore would be the patient education regarding the sexual side effects of these widely prescribed medications. Addressing just this guarded issue by the clinicians might prevent a long term complication.

Conflict of interest: None declared.

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