CASE REPORT
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Fluvoxamine Induced Priapism: an unusual case report

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Abstract

Antidepressants are usually associated with sexual side effects such as reduced sexual desire, erectile dysfunction or delayed ejaculation, impotence and orgasm problems. In the literature, there are reported cases including increased libido due to fluvoxamine use. But there aren't any case report about priapism due to fluvoxamine. In this case report, it was aimed to discuss the increase in libido and prolonged painful erection that occur during fluvoxamine treatment.
Keywords: Fluvoxamine, Antidepressant, Priapism

INTRODUCTION

Antidepressants have long been used in the treatment of many diseases such as depression, anxiety disorders, obsessive-compulsive disorder (OCD). Sexual dysfunction can be secondary to psychiatric diseases such as depression, but the use of antidepressants can cause sexual side effects. Such as decreased sexual desire, erectile dysfunction, ejaculation, impotence and orgasm problems (1).

In studies interested in sexual adverse effects of antidepressants, researchers are claimed that paroxetine has more sexual side effects and fluvoxamine has less sexual side effects than the other antidepressants (2, 3). Fluvoxamine is a selective serotonin re-uptake inhibitor (SSRI). SSRI group antidepressants like fluvoxamine have a strong inhibition effect on serotonin reuptake. Particularly through the stimulation at 5-HT2 receptors, it is thought to cause libido reduction owing to suppressing the release of dopamine from the nucleus accumbens in the mesolimbic pathway (4). An increase in dopaminergic activity in the nucleus accumbens which is one of the most important formations of the limbic system lead to increased sexual activity (5, 6).

Another side effect of antidepressants is priapism characterized by prolonged and painful erection. Although trazodone is most associated with prolonged erection and priapism; there are some case reports of priapism and prolonged erection due to the use of citalopram, paroxetine, fluoxetine and duloxetine in the literature (7-11).

CASE

Our case is 47 years old male patient. He is teacher, married for 18 years, has two children. He has obsessive thoughts about his wife for 3 years. He found out that his wife had another boyfriend before marriage. He had the idea that he had been betrayed for not having been told before his marriage. Because of this thought he was getting alienated from his wife. He spent most of the day to thinking about that he was being deceived and he was constantly asking to his wife about this.

Besides, there were complaints such as insomnia, unhappiness and malaise. He had sexual aversion. Even though he knew that his wife would not cheat on him, he felt like cheated.

In the psychiatric examination, the patient's clothing was attentive, meticulous; self-care was good; speech speed and pressure was normal. Cognitive functions were normal. The patient's mood was depressive and anxious. The thought process was neat and detailed. He had a full insight. He has never taken any psychiatric treatment. There wasn't any psychiatric disease in his family history. The patient did not report a history of additional medical disease. He was diagnosed with OCD and Fluvoxamine 200 mg / day was given gradually.

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In the interview after one month, he mentioned increased libido and the fact that despite ejaculation, there was painful erection over 6 hours. His complaints have begun after the use of fluvoxamine. Manic symptoms were questioned. Manic or hypomanic findings were not found. The patient was consulted to the urology outpatient clinic to investigate any organic pathology. Urologists did not detect active pathology to explain prolonged and painful erection. As a result, fluvoxamine was gradually stopped. Control was recommended one month later. In the control examination, he said that erection duration was decreased, there was no painful erection and the sexual desire was returned to normal.

DISCUSSION

SSRIs have been approved in the treatment of major depression in their first years of discovery. They are currently used in the treatment of many disorders such as anxiety disorders, panic disorder, social phobia, post-traumatic stress disorder, eating disorders, OCD and premenstrual dysphoric syndrome. Sexual side effects of antidepressants are important negative factors in treatment compliance and treatment continuity of patients. In many studies, different sexual side effects have been reported for antidepressants from different groups (13). These drugs may cause sexual side effects such as reduced sexual desire, erectile dysfunction, ejaculation, lubrication and orgasm problems (1, 12).

In a study involved 4557 depressive patients in France, the frequency of sexual problems reported by the patients was 35%. In the study, 989 (79%) of 1332 people using SSRIs had sexual side effects. The most common side effect was decreased libido (13). In Montejo Gonzales Angel L. et al., 's study involving 344 subjects using fluoxetine, paroxetine, sertraline, fluvoxamine; sexual dysfunction was occurred in 200 (58.14%) of the participants (2, 14).

Although antidepressants are frequently associated with sexual dysfunction; increased sexual behaviors such as prolonged erection, increased libido and priapism can be seen (4).

It was reported that fluvoxamine could rarely increase libido in a post-marketing study in France (15). It is assumed that fluvoxamine has alpha 2 adrenoreceptor antagonist. This antagonism directly and indirectly increases noradrenaline and dopaminergic activity (16). Therefore, the increase in libido associated with fluvoxamine may be related to this. Indeed, in some study, alpha 2 receptor antagonist agent yohimbine has been reported to treat sexual dysfunctions due to antidepressants (17). In addition, some researchers assert that fluvoxamine increases glutamate release in the prelimbic cortex by activating 5-HT3 and sigma receptors (18). This information may also be illustrative for neurobiological aspects of increased libido associated with fluvoxamine. The fact that the effect on 5-HT1, alpha 1 and 5-HT2C receptors minimal can be informative for this increased sexual arousal (4).

Another side effect was prolonged erection in our case. When we looked at the literature, we did not find any cases of prolonged erection due to fluvoxamine use. Although antidepressant most associated with prolonged erection is trazodone, the underlying mechanism is still unclear. Trazodone is thought to cause prolonged erection and priapism by antagonizing 5-HT2A / 5-HT2C and alpha 2 adrenergic receptors (4). Fluvoxamine induced prolonged erection may be associated with alpha receptor blockade. The interaction of fluvoxamine with 5-HT1A, 5-HT2C may help the erection by increasing parasympathetic tone, while inhibiting ejaculation by decreasing sympathetic tone (19). In the peripheral nervous system, it can extend the erection time through reducing sympathetic discharge and increasing parasympathetic discharge (19). Penile erection is activated by the stimulation of 5-HT1B, 5-HT1C, 5-HT1D receptors, whereas it is inhibited by 5-HT1A, 5-HT2 stimulation (20).

CONCLUSION

Although we have explained the possible mechanisms of fluvoxamine-induced increased libido and priapism, prospective large-sample studies are needed. The use of fluvoxamine should also be kept in mind in physicians encountering priapism.

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Both externally and internally peer reviewed.

Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

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Ethical Declaration

Informed consent was obtained from the participant and Helsinki Declaration rules were followed to conduct this study.

Authorship Contributions

Concept: AT, GBA, Design: AT, GBA, Supervising: AT, GBA, Financing and equipment: AT, GBA, Data collection and entry: AT, GBA, Analysis and interpretation: AT, GBA, Literature search: AT, GBA, Writing: AT, GBA, Critical review: AT, GBA.

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