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Venlafaxine-induced prostatism: a case report

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ABSTRACT

Venlafaxine, which is often used for a number of psychiatric-related conditions such as the treatment of major depression, generalized anxiety disorder, social anxiety disorder and panic disorder, is generally a drug that is well tolerated and safe. The side effects of drugs can cause the treatment to prematurely terminate. Clinicians should prefer appropriate and low side-effects drugs to prevent this. This situation is also especially important for psychiatric patients. Prostatism, which impairs quality of life, is an important medical condition, with clinical and social implications. In the previous studies, prostatism was declared as a side effect of some antidepressant such as milnacipran, duloxetine and reboxetine. In our case, we discussed that venlafaxine-related prostatism developed in a male patient. As far as we know this is the first report of venlafaxine-induced prostatism.

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KEYWORDS

Prostatism; side effect;
venlafaxine

Introduction

Prostatism which impairs quality of life is an important medical condition, with clinical and social implications. Prostatism is a disorder that appears due to obstruction in the urethra or pressure on the urethra; the most common causes are hyperplasia of prostate. Forced urination, diminished urine caliber, disrupted urine projection, the need to wait before starting urination, dripping at the end of urination, sensation of incomplete emptying of the bladder and rarely urinary retention are some primary findings [1]. These findings are usually tolerated.

Male with prostatism symptoms are very common, have a multifactorial etiology and with an aging population, are likely to increase. By the age of 50 years, about 50% of men are identified with prostatism symptoms; by 80 years, 90% of men are identified [2, 3]. Prostatism may develop some complications including recurrent urinary tract infections, hematuria and renal failure [4].



Selective serotonin–norepinephrine reuptake inhibitors such as venlafaxine, duloxetine and milnacipran is often used for a number of psychiatric-related conditions such as the treatment of major depression, generalized anxiety disorder, social anxiety disorder and panic disorder. Venlafaxine which was first introduced by Wyeth in 1993 is a potent inhibitor of serotonin and norepinephrine reuptake with weak inhibition of dopamine reuptake [5]. Venlafaxine which is generally well tolerated, is safe and effective, and widely used as a second-generation antidepressant. Adverse side

effects occur in less than 1/1000 patients who used venlafaxine [6]. Including nausea, vomiting, decreased appetite, diarrhea, dry mouth, constipation, somnolence and increased liver enzymes are some possible side effects of venlafaxine [6]. In spite of the side effects associated with different systems being reported, prostatism has not been previously reported [7].

In this report we present a case of prostatism associated with venlafaxine.

Case

A 49-year-old male, married, graduated high school, account manager, having three children reported to clinic showing depressive symptoms. His chief complaints were depressed mood, irritability, insomnia, uncontrollable worry about bad things will happen, restlessness and difficulty of concentration over the last two months. His personal background was negative for psychiatric medical disease. He and his family history were also negative for alcohol and drug. The score of Hamilton Depression Rating Scale (HAM-D) was 38. According to the criteria of DSM-5, the patient was diagnosed by a psychiatrist with major depressive disorder and prescribed venlafaxine 37.5 mg/day and titrated up to 75 mg/day p. o. A week after pharmacological treatment, the patient re-applied to our clinic complaining of prostatism symptoms, which started on the third day of venlafaxine treatment. Internal medicine and urology specialists were consulted for this patient. The patient's PSA total blood count, liver

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(ALT, AST, ALP and albumin) and renal function tests (urea and creatinine), electrolytes (Na, K, Cl and Ca), complete urine examination, prostate USG and PA lung graphic were normal. Venlafaxine dosage was decreased to 37.5 mg/g; therefore, the prostatism symptoms were relieved. However, these symptoms occurred again when the dosage was increased to 75 mg/g because of the depressive symptoms treatment. According to the Naranjo Causality Scale (which showed a score of 6) this adverse effect was probably induced by venlafaxine [8]. Following stopping of venlafaxine treatment, he was started on escitalopram (10 mg/day). Withdrawal of venlafaxine led to amelioration of prostatism over of a period of 3–5 days. His depression remitted with escitalopram and last HAM-D score was 4 on the 8th week.

Discussion

Prostatism associated with venlafaxine has not been previously described in any clinical study. As far as we know this is the first report of venlafaxine-induced prostatism. Duloxetine, milnacipran and reboxetine that are effective through the noradrenaline mechanism, have been reported to be related with prostatism but has not been reported with serotonin reuptake inhibitors [9–11].

According to several studies the inhibition of the neurotransmitters noradrenaline (NE) and serotonin (5-HT) reuptake inhibition plays an important role in the regulation of the lower urinary tract function [12]. The pudendal somatic motor nucleus of the spinal cord is densely innervated by serotonin and noradrenaline terminals [13]. Taking into consideration this, the occurrence of prostatism on venlafaxine and not with escitalopram may suggest a possible contribution of noradrenaline reuptake inhibition, resulting in an increase in its extracellular concentration, owing to a mechanism of activation of multiple adrenergic receptor subtypes. The synergistic effect of the serotonergic and noradrenergic reuptake inhibition might also be considered as a probable clarification for this effect.

Venlafaxine is still in clinical practice used as an effective, tolerable and safe antidepressant. Although the incidence of venlafaxine-induced prostatism is low, the consequences can be severe and clinicians should be aware of this rare adverse side effect while prescribing venlafaxine. It would be advisable that venlafaxine therefore be used with caution in patients with existing urinary problems and prostate disease, especially as these side effects seem to be dose-related. Conversely, venlafaxine may probably be the preferred antidepressant for patients with symptoms of stress incontinence. Confirmation of this hypothesis requires further study.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- [1] McConnell JD. The pathophysiology of benign prostatic hyperplasia. *J Androl.* 1991;12:356–363.
- [2] Sausville J, Naslund M. Benign prostatic hyperplasia and prostate cancer: an overview for primary care physicians. *Int J Clin Pract.* 2010;64:1740–1745.
- [3] Homma Y, Gotoh M, Yokoyama O, et al. Outline of JUA clinical guidelines for benign prostatic hyperplasia. *Int J Urol Off J Jpn Urol Assoc.* 2011;18:741–756.
- [4] Kapoor A. Benign prostatic hyperplasia (BPH) management in the primary care setting. *Can J Urol.* 2012;19 Suppl 1:10–17.
- [5] Holliday SM, Benfield P. Venlafaxine. A review of its pharmacology and therapeutic potential in depression. *Drugs.* 1995;49:280–294.
- [6] Gartlehner G, Hansen RA, Morgan LC, et al. Second-generation antidepressants in the pharmacologic treatment of adult depression: an update of the 2007 comparative effectiveness review. *AHRQ Comparative Effectiveness Reviews, Rockville (MD);* 2011.
- [7] Johnson EM, Whyte E, Mulsant BH, et al. Cardiovascular changes associated with venlafaxine in the treatment of late-life depression. *Am J Geriatr Psychiatry: Off J Am Assoc Geriatric Psychiatry.* 2006;14:796–802.
- [8] Naranjo CA, Busto U, Sellers EM, et al. A method for estimating the probability of adverse drug reactions. *Clin Pharmacol Ther.* 1981;30:239–245.
- [9] Thor KB, Katofiasc MA. Effects of duloxetine, a combined serotonin and norepinephrine reuptake inhibitor, on central neural control of lower urinary tract function in the chloralose-anesthetized female cat. *J Pharmacol Exp Ther.* 1995;274:1014–1024.
- [10] Akpınar A. Acute prostatism associated with milnacipran therapy: a case report. *Turk Psikiyatri Dergisi/Turk J Psychiatry.* 2009;20:403–405.
- [11] Holm KJ SC. Reboxetine: a review of its use in depression. *CNS Drugs.* 1999;65–83.
- [12] Katofiasc MA, Nissen J, Audia JE, et al. Comparison of the effects of serotonin selective, norepinephrine selective, and dual serotonin and norepinephrine reuptake inhibitors on lower urinary tract function in cats. *Life Sci.* 2002;71:1227–1236.
- [13] Jost W, Marsalek P. Duloxetine: mechanism of action at the lower urinary tract and Onuf's nucleus. *Clin Auton Res Off J Clin Auton Res Soc.* 2004;14:220–227.