Venlafaxine-Induced Urinary Retention

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Venlafaxine is a dual reuptake inhibitor of serotonın and norepinephrine. It is also a weak reuptake inhibitor of dopamine when used above 300 mg.[1] Venlafaxine is used for the treatment of all types of depression, especially anxious depression. It is a safe and well-tolerated drug in psychiatry practice.[2] The most common side effects occurring in the first week of therapy are nausea and vomiting. The other common side effects are headache and dry mouth during venlafaxine treatment. Venlafaxine can lead to hypertension at doses above 300 mg/day.[1–4] Venlafaxine is not expected to cause anticholinergic side effects because it shows low affinity for muscarinic receptors.[3] Here, the case is presented of a man with depression who developed urinary retention as a rare side effect during treatment with venlafaxine.

Case Report

A 24-year-old man was admitted to our psychiatry outpatient clinic for complaints of malaise, lack of energy, hypersomnia, psychomotor retardation, attention and concentration problems, and weakness. In his psychiatric history, we learned that he used sertraline 50 mg/day for 2 months and fluoxetine 20 mg/day for 3 months, but his depressive complaints had not decreased. We decided to start venlafaxine 37.5 mg/day, which was increased to 75 mg/day after 2 weeks. After a month, the venlafaxine dose was increased to 150 mg/day. On the seventh day of treatment with venlafaxine 150 mg/day, the patient developed hesitancy, inability to urinate, and urinary retention. On physical examination, an enlarged bladder was detected. The patient's urine was evacuated with a catheter. He had no history of urologic problems. Venlafaxine was reduced and stopped. The patient began urinating easily the next day.

Discussion

This report presents urinary retention as a rare side effect of venlafaxine. Previously, the venlafaxine-haloperidol combination was shown to cause urinary retention in a patient.[5] In this case,[5] urinary retention was associated with increased anticholinergic effects of haloperidol due to venlafaxine-haloperidol drug interaction. Anticholinergic side effects have been reported due to increased blood levels of venlafaxine as a drug interaction when combined with other antidepressants.[6,7] In a pediatric case,[8] difficulty urinating occurred secondary to venlafaxine overdose as a medication error. This case is the first report of venlafaxine-induced urinary retention when used as a monotherapy and in therapeutic doses.

The mechanism of venlafaxine-induced urinary retention may be associated with adrenergic activity secondary to norepinephrine reuptake inhibition.[3] Venlafaxine has no effect on the cholinergic receptors.[9]

Clinicians should be aware of this side effect of venlafaxine. On the other hand, this side effect may be useful for treatment of urinary incontinence. Further studies are needed to explain the mechanism of urinary retention with venlafaxine.

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