

Duloxetine Induced Urinary Retention: A Case Report

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Abstract

Duloxetine, a dual-reuptake inhibitor of serotonin and norepinephrine, has been approved for the treatment of major depressive disorder and for stress urinary incontinence. We describe a case of a 28 years old male patient with depression with no medical, urogenital, or psychiatric illness histories. He developed severe side effect of urinary retention following 2 weeks of treatment with Duloxetine. The urinary retention disappeared completely within 5 days after discontinuation of Duloxetine. The patient improved on Venlafaxine (150 mg/day) and has been maintaining well.

Keywords: Duloxetine; Case Report; Urinary Retention

Introduction

Duloxetine is a Food and Drug Administration (FDA) approved antidepressant that has demonstrated good efficacy for major depressive disorder and stress urinary incontinence in female [1,2]. Duloxetine improves urinary incontinence by inhibiting serotonin and norepinephrine reuptake in Onuf's nucleus which is located in the sacral spinal cord, and it has minimal anti-cholinergic properties [3,4]. In reference to the literature, there were case reports showing obstructive voiding difficulties, weak urinary stream and incomplete voiding leading to unacceptable dribbling and urinary retention after the intake of duloxetine [5,6]. In these studies, patient taking duloxetine in combination with other medication has shown problems related to urinary system and these problems resolved after discontinuation of duloxetine. To date there have been no studies exploring isolated duloxetine induced urinary retention in young individual. This study is probably the first identified case report of its kind to evaluate the relationship between Duloxetine with urinary problems in Nepal.

Case Report

A 28-year-old male with no past history of psychiatric illness was seen in Psychiatric outreach clinic for complaints of a 2 months history of tingling sensation over most part of the body, burning sensation of bilateral lower limbs, numbness, pains in the muscles and joints, back pain, headaches, dizziness, feeling as if he is going to faint, repeated belching, and discomfort in chest and throat. Further detailed history revealed sadness, decreased interest, easy fatigability, loss of appetite, poor concentration, sleep disturbance, feeling of worthlessness, hopelessness and fatigability from the time of onset of somatic symptoms. Apart from this major medical, surgical, and psychiatric illness, and substance abuse were ruled out. The patient smoked cigarette and consumed alcohol occasionally, but not in dependent pattern. The organic conditions were ruled out by detailed history and relevant blood investigations including brain scan. He was provisionally diagnosed as a case of major depressive episode.

Duloxetine was prescribed at a dosage of 20 mg a day and patient was advised to follow up in two weeks. Patient showed no improvement in 2 weeks period. The dose was subsequently increased to 30 mg a day and he was advised to follow-up again after 2 weeks. After 16 days on medication, he developed urinary retention for which he was taken to emergency and catheterization was done. Duloxetine was discontinued following this complication. The urinary retention disappeared completely within 5 days after discontinuation of duloxetine. Then, patient was switched to venlafaxine (37.5 mg/day) and the dose was gradually increased to 150 mg a day. In 4 months on venlafaxine, symptoms of depression were in remission and patient reached to pre-morbid level of functioning.

Discussion

Duloxetine is a Food and Drug Administration (FDA) approved antidepressant medication that has demonstrated efficacy for major depressive episodes and for female stress urinary incontinence [1,2]. It is evident that duloxetine inhibits serotonin and norepinephrine resulting in improvement in urinary incontinence and it carries minimal anticholinergic properties [4]. In contrast to existing literatures, our patient developed urinary retention after 16 days of intake of duloxetine. In reference to some case reports, patients developed similar symptoms; however, they were taking duloxetine in combination with other medication [5,6]. In a study, a male patient with post-psychotic depression developed the severe side effect of urinary retention during anti-depressive treatment with duloxetine in combination with olanzapine [6]. He was under duloxetine (60 mg/d) and olanzapine and developed obstructive voiding difficulties, weak urinary stream and incomplete voiding leading to unacceptable dribbling. The urinary symptoms disappeared completely within 1 week after discontinuation of duloxetine. Similarly, another study reported urination difficulty and hesitancy leading to urinary retention in an Asian young man of 36 years in taking 60 mg of duloxetine along with quetiapine [5]. In this case, patient experienced much more severe urinary retention that did not improve with duloxetine discontinuation and further required more than 16 days of urinary catheterization and a uroselective α 1-blocker. In both of these cases, there may be some contribution of antipsychotic drug in development of urinary symptoms. However, symptoms get improved on discontinuation of only the duloxetine. In past studies [5,6], patient was under duloxetine with combination with other psychotropic drug and clearly demonstrated the role of duloxetine induced urinary related problem. In concordance to these studies, urinary retention was improved following discontinuation of duloxetine strongly suggest the drug induced condition. There are very limited and countable numbers of study published related to our study. Further, study is needed to explore the exact association of duloxetine with urinary retention.

Conclusion

This case report demonstrates urinary retention in young male for the first time in his life. There are debates regarding the exact contributing factor of urinary retention in patient taking duloxetine. However, occurrence of urinary related complication in a young male patient with no urological illness should be a great concern. Thus, this case report suggests the need of great attention on urinary function while using duloxetine.

Disclosure

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