

# Rapid Weight Gain Associated With Edema After Use of Paroxetine and Venlafaxine: 2 Case Reports

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**Abstract:** Edema is a rarely observed adverse effect of the usage of antidepressant, with only few case reports of peripheral edema in the literature. This report included 2 patients who presented with rapid weight gain related to edema after the use of venlafaxine and paroxetine alone. The adverse effects developed within 2 to 3 weeks after the start of the treatments and completely resolved after their discontinuation.

**Key Words:** venlafaxine, paroxetine, antidepressants, edema

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Venlafaxine and paroxetine are 2 antidepressant agents widely used in the treatment of depression and anxiety disorders. The most common adverse effects of these drugs are related to the gastrointestinal system, sleep dysfunction, and sexual dysfunction. Weight gain is another adverse effect of the usage of these antidepressants. A naturalistic study suggests that venlafaxine and selective serotonin reuptake inhibitors are associated with weight gain in approximately one fifth of the patients.<sup>1</sup> Systematic reviews reported that whereas paroxetine was related to a greater risk of weight gain compared to other antidepressants except amitriptyline and mirtazapine, venlafaxine had a minimal effect on weight gain.<sup>2,3</sup>

The mechanisms of weight gain secondary to antidepressant medications are unclear. Increased appetite after antidepressant administration is frequently seen in patients resulting in increased body weight. However, the development of an anasarca edema and rapid weight gain after the use of venlafaxine was reported in a patient.<sup>4</sup> The current report presents 2 cases of general body edema and rapid weight gain after treatment with venlafaxine and paroxetine.

## CASE 1

A 38-year-old woman was admitted to the psychiatric outpatient clinic of a university hospital owing to symptoms of depressed mood, anhedonia, decreased sleep, psychomotor slowing, and reduced ability to concentrate during the last 4 weeks. The psychiatric interview performed by means of the *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*<sup>5</sup> demonstrated a current major depressive episode. She did not have history of any psychiatric disorder. The patient reported no changes in appetite or weight gain during the episode.

Venlafaxine at 150 mg/d was started (75 mg/d for the first week). Two weeks after the initiation of venlafaxine, the patient reported marked swelling in almost all body region parts,

particularly her legs and hands, and a weight gain of 15 kg. The patient described no increase in appetite during the treatment. In addition to body temperature and blood pressure, routine laboratory tests such as hemogram, serum levels of urea, creatinine, alanine transaminase, aspartate transaminase, sodium, calcium, potassium, and albumin were normal. The venlafaxine treatment was stopped. Her symptoms related to weight gain and edema resolved within the following 7 days.

## CASE 2

A 29-year-old woman was admitted to the same psychiatry outpatient clinic, with panic attack symptoms that occurred almost every day. She also presented with depressive symptoms such as anhedonia, depressed mood, and disturbances in sleep and appetite. The patient had a history of use of citalopram at 40 mg/d because of a diagnosis of panic disorder for the previous 3 months. However, she reported that the treatment did not lead to a decrease in the symptoms. The current psychiatric interview carried out with the *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*<sup>5</sup> indicated a diagnosis of panic disorder and major depression.

Citalopram was changed to paroxetine at 20 mg/d (10 mg/d for the first 4 days). Three weeks later, the patient described a significant reduction in the symptoms. However, the patient also reported a marked weight gain of 12 kg and with gradually increasing edema in her face, hands, and legs. She also reported a mild increase in appetite. There were no pathological findings except the edema in the physical examination. Routine laboratory results were normal. Paroxetine treatment was stopped. The edema decreased in the following days, and weight gain was completely resolved at the end of 2 weeks of the discontinuation of paroxetine.

## DISCUSSION

Edema is a rarely observed adverse effect of psychotropic agents. The available case reports mostly include peripheral edema due to antipsychotics such as olanzapine, quetiapine, and risperidone.<sup>6–8</sup> There are very few reports related to antidepressants. Masdrakis et al<sup>9</sup> reported bilateral ankle edema in a female patient taking escitalopram at 30 mg/d. Similar to the present cases, Ballon and Schulman<sup>4</sup> reported the rapid development of anasarca and weight gain after the use of venlafaxine. To date, there is no published report showing paroxetine-induced rapid weight gain secondary to edema.

The precise mechanism underlying weight gain and edema presented in this report is currently unknown. Both the antidepressants described in this report are frequently used worldwide, but edema is very rare. This condition could be due to a hypersensitivity reaction to the drugs rather than their pharmacological properties. In addition, when the available case reports are considered, antidepressant- and antipsychotic-induced edema seems to be more frequently seen in female patients than in male patients.<sup>6–9</sup> Therefore, edema may be associated with changes secondary to the effects of antidepressants on sex hormones in female patients. Recently, a cross-sectional study suggested

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that the use of antidepressants is related to menstrual disorders in women.<sup>10</sup>

In conclusion, rapid weight gain secondary to edema after paroxetine and venlafaxine usage may develop in some patients. However, the incidence and mechanism of these adverse effects should be examined by further studies.

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