Skin Reaction Associated With Vortioxetine: Purpuric Rash

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Abstract
Cognitive impairments continue during the symptomatic period and remission in patients with major depressive disorder. Sexual dysfunctions may be seen in depression and also represent a frequent side effect of antidepressant treatment and one of the major reasons for early discontinuation of medications. Case Report: In this case report we present a 38-year-old female patient who experienced a side effect while receiving treatment for major depression. The patient was switched to vortioxetine 10 mg/day after 3 months of treatment with fluoxetine 40 mg/day due to continuing cognitive dysfunction and antidepressant-associated decreased libido. The patient developed an extensive purpuric rash on the anterior thighs on the third day of the treatment. The treatment was discontinued. The same side effect occurred after the re-initiation of vortioxetine treatment at a dose 5 mg/day. Reporting of observed side effects may be useful for clinicians since the number of case reports on vortioxetine is limited.

INTRODUCTION
In general population, major depressive disorder affects an average of one in every 7 persons at some point during their lifetime. It was reported that complete recovery cannot be achieved, recurrent episodes occur and chronicity is observed in around 20% of patients with depressive disorder [1]. Cognitive impairments continue during the symptomatic period and remission in patients with major depressive disorder. Therefore, continuing psychosocial dysfunction during remission is a frequent complaint and is reported to be observed at a rate of up to 44% even in patients with clinical improvement after depression treatment [2].

As a result of the studies on this subject, new agents with a “multi-modal” serotonergic effect profile different to those of the conventional antidepressants have become available in the recent years. Vortioxetine is one of these agents. It was reported that vortioxetine has a therapeutic effect on the cognitive symptoms of depression in addition to its antidepressant efficacy [3]. Multi-modal effect can be defined as the effect resulting from the use of different modes of action by a drug. It was thought that these drugs could be superior through receptor modulation in addition to serotonin reuptake inhibition [4]. Sexual dysfunctions may be seen in depression and also represent a frequent side effect of antidepressant treatment and one of the major reasons for early discontinuation of medications. The identification of these side effects requires inquiry by clinicians in some cases, while rarely patients themselves report these side effects [5].

CASE REPORT
The case was a 38-year-old female patient. She had not previously received any psychiatric treatment and this was her first depressive episode. She had no chronic diseases. She was a housewife and had 2 children. The patient admitted to the outpatient clinic with the complaints of depressed mood, nervousness, loss of motivation, being unable to enjoy life, impaired concentration, sleepiness and inability to take care of her family. Thyroid function tests and vitamin B12 and D measurements were performed to exclude organicity and the results were normal. The patient was diagnosed with major depression. Her Hamilton Depression Rating Scale (HAMD) score was 21. Treatment was initiated with fluoxetine 20 mg/day and at 1-month visit after treatment initiation, there was a reduction in depressive symptoms but loss of motivation...
and concentration problem remained. The HAMD score was 13. The dose of fluoxetine was increased to 40 mg/day. She continued the treatment and at the 3-month outpatient control visit she reported that the mood complaints resolved but her memory impairment and concentration problem remained. The patient reported that her loss of libido remained the same as before the treatment and was affecting her quality of life and fluoxetine treatment was tapered off. One week later, vortioxetine 10 mg was initiated. The patient reported that extensive rashes appeared on anterior thighs extending from the upper knees to the pubis on day 2 of the treatment and that the number of rashes increased and their color became darker on the 3rd day of the treatment. The patient admitted to the emergency service, a dermatology consultation was requested and intramuscular antihistamine injection was administered with the pre-diagnoses of drug reaction and purpuric rash. The patient was advised to discontinue the treatment, it was confirmed that the patient had not previously experienced such a reaction and had no allergies and, furthermore, the patient was not taking any other medications at that time. The patient came back for control 10 days later and vortioxetine 5 mg was initiated. However, on the third day of the treatment with the reduced dose, extensive purpuric rashes reappeared on the anterior thighs leading to the discontinuation of the treatment. A side effect reporting form was completed and sent to the drug manufacturer.

DISCUSSION

An average of 20-30% of patients with major depressive disorder experience cognitive disorders, particularly related to executive functions [6]. It is observed that cognitive impairment in depression results in psychosocial dysfunction affecting work performance. The mean loss of workdays was reported as 27.2 days per patient per year [7]. Depression can cause decreased libido, decreased arousal, and orgasm and erection problems, while antidepressants may also cause these symptoms. Vortioxetine is one of the agents considered to have relatively less side effects [8]. Thus, this patient with impairment in cognitive functions considered to be associated with depression and decreased libido associated with antidepressant use was switched to vortioxetine.

When the purpuric rash first appeared during the first vortioxetine treatment, it was considered that these findings might not be solely associated with vortioxetine since fluoxetine was discontinued only one week ago and has a long half-life. However, the same findings appeared on the second day of the second vortioxetine treatment administered with a lower dose, indicating that the side effect was associated with vortioxetine. As with any antidepressants, vortioxetine may also cause side effects. Case reports on the side effects of vortioxetine are limited in the literature. These case reports include serotonin syndrome, bipolar switch, suicide attempt, galactorrhea and hyponatremia associated with vortioxetine [9-13]. There are two articles published recently about vortioxetine and dermatologic adverse effects. Cetin M., & Kose S. (2018) described two cases with signs of severe dermatologic adverse effects such as edema, petechiae, and ecchymosis [14]. One of the cases was concerning about excessive itching at the body; edema, petechiae, and ecchymoses at the legs and the other one was complaining from itching and pruritis developed in the skin all of over the body. Ay R., & Aytas O. (2019) described acneiform eruption on both cheek areas on the face during vortioxetine treatment [15].

In our case there was purpuric rash at anterior thighs extending from the upper knees to the pubis. The addition of our case of purpuric rash to the literature may be important for the clinical practice of other clinicians since the number of case reports on vortioxetine treatment is limited.

REFERENCES


