

Delayed onset dystonia associated with venlafaxine; case report

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Introduction

Stroke patients commonly experience Depressive disorders, impacting their daily functioning negatively. Depressive disorder often needs medication for treatment. Commonly prescribed medications include SSRIs(Selective Serotonin Reuptake Inhibitors), SNRIs(Serotonin-Norepinephrine Reuptake Inhibitors), and TCAs(Tricyclic Antidepressants) which affect serotonin or norepinephrine levels in the brain. These medications may cause EPS (Extrapyramidal syndrome), such as dystonia. Among SNRIs, akathisia is common, while dystonia is rare. This case explores dystonia during SNRI therapy in stroke patients with depressive disorders, its course, and potential treatments.

Case report

On May 30, 2022, a 60-year-old woman presented with a severe headache and was diagnosed with an unruptured intracranial aneurysm(UIA) and left paraclinoid internal carotid artery(ICA) on brain image. Following transfemoral cerebral angiography(TFCA) and coil embolization, she experienced intracerebral hemorrhage(ICH) in the right frontal region, subarachnoid hemorrhage(SAH), and intraventricular hemorrhage(IVH), necessitating free-hand aspiration(FHA) and external ventricular drain(EVD).

After 3 weeks, she transferred to our department for rehabilitation therapy. At that time, she had flaccid-hemiplegia on the left side and spasticity or other movement disorder were not shown. She started taking Sertraline(SSRIs) 50mg daily due to depressive disorder and, after 5 months, switched to Venlafaxine(SNRIs) 150mg daily due to worsening depressive symptoms.

After 8 months, due to apathy, Venlafaxine dose was reduced to 112.5mg daily. However, she developed left-sided dystonia. Despite Brain images and blood studies, no significant abnormalities were found. Clonazepam provided temporary relief, but dystonia returned. Drug-induced dystonia was suspected, leading to the discontinuation of venlafaxine, after which the symptoms of dystonia subsided. However, depressive symptoms returned, leading to Amitriptyline(TCAs) 10mg daily administration, which improved mood. Upon discharge and during outpatient follow-up, there were no recurrences of dystonia observed.

Discussion

The patient, previously unaffected by movement disorders, developed dystonia while undergoing SNRIs treatment. Discontinuation of venlafaxine led to symptom improvement, suggesting venlafaxine-induced dystonia.

Symptoms of venlafaxine-induced dystonia manifested acutely within 24 hours in prior cases, but in this case, they emerged with a delayed onset several months after medication initiation.

EPS is a drug-induced movement disorder marked by dopaminergic D2 receptor blockade in brain pathways. It's often caused by antipsychotics, SSRIs, and TCAs, with SSRIs and SNRIs linked to CYP2D6 and serotonin-dopamine receptors.

EPS in stroke patients can manifest regardless of the timing of medication intake, emphasizing the importance of caution regarding potential side effects when prescribing medication.

Figure 1. Patient with delayed onset dystonia on the left side associated with venlafaxine

