Escitalopram-induced akathisia in a patient with major depressive disorder: A rare case report

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Abstract
Medication-induced akathisia is restlessness with excessive movements developing after initiation/increasing or decreasing the dose of drugs. Herein, we reported the case of a 38-year-old widowed mother of two children, a known case of major depressive disorder and type 2 diabetes mellitus, who presented with akathisia for 1 month following the use of escitalopram. The patient scored 3 on the Barnes Akathisia Rating Scale global assessment. She was managed by decreasing the offending agent dose and adding clonazepam and propranolol. Her condition gradually improved, and she did not have akathisia by the end of 2 weeks. It is crucial to identify medication-induced akathisia as it is rare and associated with suicidality. Hence, a high index of clinical suspicion and adequate management are warranted.

Keywords
Mental health/psychiatry, pharmacoepidemiology/drug safety, escitalopram, akathisia, case report

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Introduction
Major depressive disorder (MDD) is often recurrent, with the characteristic features of depressed mood, anhedonia, impaired attention/concentration, altered appetite, altered sleep, fatigueability, worthlessness, and suicidal ideation for at least 2 weeks.1 Risk factors include neuroticism, adverse childhood experience, stressful life events, positive family history, and chronic diseases.1 Detailed clinical evaluation is important as the patients can have associated psychiatric comorbidities and aids in developing more personalized management.2 Patients with MDD are managed with a combination of psychotherapy and pharmacotherapy. Pharmacotherapy mainly involves the use of anti-depressant medications such as selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and monoamine-oxidase (MAO-B) inhibitors.3 In addition, antipsychotics are required in severe cases.3 For those not responding to pharmacotherapy, electroconvulsive therapy (ECT) can be used.3

According to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5), akathisia can be defined as subjective restlessness with excessive movements that develop after initiation/increasing or decreasing the dose of drugs indicated for the treatment of extrapyramidal symptoms.1 It has usually been associated with the use of antipsychotic drugs.4 Although the akathisia due to SSRI use has been well documented, only three cases of escitalopram-induced akathisia have been reported in the literature so far. Herein, we describe the case of a 38-year-old Asian woman, a known case of major depressive disorder presenting with akathisia due to escitalopram use.

Case report
A 38-year-old divorced mother of two children complained of an inner sense of restlessness, an urge to move around in the room, an inability to sit still, and repetitive shifting from one foot to another for 1 month. She has been a known case of type 2 diabetes mellitus (T2DM) and major depressive disorder for the past 8 years.

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She had a history of relapse of major depressive disorder 6 months back, for which the dose of fluoxetine was increased from 20 to 40 mg. She took fluoxetine for 2 months and then discontinued it for 4 months. On a subsequent visit, she reported ongoing symptoms of depression, such as depressed mood, anhedonia, insomnia, easy fatiguability, and feeling of worthlessness. So, she was started on Tab Escitalopram 5 mg, which was further increased to 10 mg escitalopram over 1 week. The patient developed restlessness, an urge to move around in the room, an inability to sit still, and repetitive shifting from one foot to another. These symptoms were noticed by the patient 1 month after starting Tab Escitalopram 10 mg, which she attributed to anxiety due to ongoing personal stressors in the beginning. But her condition got worse, and she decided to see a physician.

Her detailed drug history showed that besides fluoxetine, she took non-steroidal anti-inflammatory drugs for her chronic back pain and metformin, as she was recently diagnosed with diabetes mellitus type 2, which is under control. She did not use any illicit drugs.

On observation, she looked in mild distress and slightly anxious, pacing around the room from one corner to another. When asked to sit, she barely could sit for a few seconds and looked more distressed due to her inability to do so. Her vitals were a pulse rate of 80 beats per minute, blood pressure of 130/90 mm Hg, respiratory rate of 18 cycles per minute, and temperature of 36.9 °C. Her mini-mental status examination was normal. She was assessed with the help of the Barnes Akathisia Rating Scale (BARS) with a score of 3 on the global assessment, indicating moderate akathisia. Her baseline investigations were normal, including complete blood cell count, thyroid function test, liver function test, and renal function test. Her urine drug screen was also found to be negative.

Based on her clinical evaluation, she was diagnosed with akathisia induced by escitalopram. She was managed by decreasing the dose of escitalopram to 5 mg and adding Tab propranolol 20 mg PO BD and Tab clonazepam 0.5 mg PO OD. Her condition gradually improved, and symptoms of akathisia resolved after 2 weeks. Also, there was a gradual improvement in depressive symptoms. Her sleep and mood improved significantly. However, there were residual symptoms of anhedonia, easy fatiguability, and a feeling of worthlessness, which were less severe than earlier.

**Discussion**

SSRIs are commonly indicated antidepressants in patients with major depressive disorder. Many adverse effects have been reported in the literature following the use of SSRIs. Rarely akathisia has been reported, which is even rarer following the use of escitalopram. FDA data–based study has estimated the prevalence of escitalopram-induced akathisia to be approximately 0.46%. There is no apparent reason for SSRI-induced akathisia. However, it has been hypothesized to be due to serotonin-induced dopaminergic inhibition. The risk factors associated with SSRI-induced akathisia include increased SSRI dose/high dose, female sex, previous history of akathisia, multiple akathisia-causing drugs, and SSRIs with a longer half-life. Furthermore, it can develop within days to weeks. Pratap et al. reported severe akathisia in a 25-year-old patient who became suicidal even on a low dose of 5 mg escitalopram within 2 days of starting it. In our case, the patient was a female and presented with akathisia 1 month after increasing the dose of escitalopram from 5 to 10 mg. As fluoxetine was discontinued 4 months back and there were no other medications or conditions that could have resulted in akathisia, a diagnosis of escitalopram-induced akathisia was made.

These patients are managed with the addition of centrally acting beta-blockers, benzodiazepines, or anticholinergics. In addition, a clinician may need to decrease the dosage, change the drug or stop the use of the offending agent. In our case, the patient was managed by decreasing the dose of the offending agent (escitalopram) and adding clonazepam and propranolol, which resulted in the gradual improvement of symptoms.

**Conclusion**

Our case highlighted the approach to diagnosis and management of patients with escitalopram-induced akathisia. For diagnosis of escitalopram-induced akathisia, a detailed clinical evaluation with particular importance on drug history is required. These cases can be managed by decreasing the causative agent dose and adding propranolol and clonazepam.

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**Author contributions**

HA, SS, PKS, OO, and AA were involved in the conception, design, drafting, and critically revising of the manuscript. All authors are accountable for all aspects of the manuscript.

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Our institution does not require ethical approval for reporting individual cases or case series.
Guarantor
Hareem Arshad is the guarantor of this article.

Informed consent
Written informed consent was obtained from the legally authorized representative of the mentally ill subject (with depressive disorder) for the publication of this case.

Permissions
The Barnes Akathisia Rating Scale (BARS) is freely available in the public domain and we do not require permission, as we are not reusing it for the journal.

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