

## Clozapine withdrawal emergent myoclonus: A case series

M V Abeyrathne, H M T S Abayawickrama, N E Hendawitharana, S Amarasinghe

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### Introduction

Clozapine is the treatment of choice for resistant schizophrenia, but its discontinuation, particularly when abrupt, can lead to a range of withdrawal phenomena. While clozapine-induced myoclonus is well-documented, clozapine withdrawal-emergent myoclonus is scarcely reported.

### Case 1

A 35-year-old male with Resistant Schizophrenia, stable on Clozapine 500mg nocte, developed reduced responsiveness while receiving in-ward care. On examination, the patient was febrile, dehydrated, but was well-oriented with stable vitals. His medical work-up revealed a neutrophilic leukocytosis, an elevated CRP, minor ECG changes, and a negative trop-I test. IV Ceftriaxone was started, and Clozapine was abruptly withheld. Two days post-discontinuation, the patient was restless and disorganized. He was disoriented in time, place, and person, and was noted to have brief, involuntary, and jerky movements of the limbs consistent with myoclonus. The new onset, myoclonic jerks, and the delirious state were attributed to Clozapine withdrawal, and Clozapine was gradually re-titrated, leading to improvement of the symptoms within four days.

### Case 2

A 51-year-old male with Schizophrenia presented with a relapse, and after unsuccessful trials of Olanzapine and Trifluoperazine, Clozapine was initiated and titrated to 125mg twice daily over three weeks. It was withheld due

to fever and hypotension and managed as an acute febrile illness. Clozapine was reintroduced and increased to 100mg twice daily over two weeks but stopped again due to tachycardia and ventricular ectopic on ECG. Forty-eight hours post-discontinuation, he developed brief, involuntary, jerky movements of the limbs and neck consistent with myoclonus. Clonazepam 0.5mg twice daily was started after neurology consultation, which led to complete resolution of the myoclonic jerks within two days.

### Conclusion

These two cases highlight the potential for myoclonus to emerge following abrupt Clozapine withdrawal, even at moderate doses. However, further research is essential to elucidate its pathophysiology and to develop effective treatment and prevention strategies.

**M V Abeyrathne**, National Institute of Mental Health, Mulleriyawa New-Town, Sri Lanka

**H M T S Abayawickrama**, National Institute of Mental Health, Mulleriyawa New-Town, Sri Lanka

**N E Hendawitharana**, National Institute of Mental Health, Mulleriyawa New-Town, Sri Lanka

**S Amarasinghe**, National Institute of Mental Health, Mulleriyawa New-Town, Sri Lanka

**Corresponding author:** M V Abeyrathne

**E-mail:** mvabeyrathne@gmail.com