

# CLONIDINE IN LIEU OF ELECTROCONVULSIVE THERAPY (ECT) FOR CONTROL OF ACUTE MANIC EXCITEMENT AMIDST THE COVID-19 PANDEMIC

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## INTRODUCTION

Evidence suggests that excessive activation of catecholamines (dopamine and norepinephrine) underlie a manic episode (Van Enkhuizen et al. 2015). Clonidine, an alpha-2-adrenergic agonist, has been used to treat acute mania, especially in antipsychotics refractory patients (Jouvent et al. 1980, Jouvent et al. 1988, Zubenko et al. 1984, Maguire & Singh 1987, Shaik et al. 2015). We describe a young male in whom clonidine was successfully used to control aggression and manic symptoms, due to the unavailability of Electroconvulsive therapy (ECT) services during the COVID-19 pandemic.

## CASE REPORT

An 18-year-old male from lower socio-economic status presented with symptoms of irritable mood, marked unprovoked verbal and physical aggression towards others, decreased need for sleep, increased talkativeness and goal directed activities, flight of ideas, and grandiose delusion lasting for one week. He had two similar episodes (four and one years ago) in the past & attained remission within a month with Tab. Olanzapine 20 mg and Tab. Sodium valproate 1000-1400 mg in each episode. Upon enquiry, it was found that he had defaulted medications three months ago and consumed cannabis and nicotine in a dependent pattern for the past two years. There was a history of suicide in both parents. Given the unmanageability at home, in-patient care was considered. He was diagnosed with Bipolar I disorder, current episode mania with mood-congruent psychotic features as per Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

Baseline investigations were normal. Urine drug screen was positive for cannabis. Young's Mania Rating Scale (YMRS) score upon admission was 34. He was treated with Tab. Olanzapine 20 mg, Tab. Valproate 1400 mg (because of past response), and Tab. Lorazepam 12 mg for two weeks without improvement. In view of persisting manic symptoms, the dose of Tab.

Valproate and Tab. Lorazepam was escalated to 1600 mg/day (body weight-55 kg) and 16 mg/day in divided doses, respectively. Tab. Olanzapine was gradually cross-tapered with Tab. Chlorpromazine gradually titrated to 1000 mg/day over one week. Switch to Tab. Chlorpromazine was considered in view of inadequate response to Olanzapine and to leverage its sedating properties. Over the next four weeks, he required physical restraints, as multiple injections of Inj. Haloperidol 5 mg & Inj. Phenergan 50 mg alternating with Inj. Lorazepam 4 mg SOS (maximum cumulative dosage in 24 hours – 20 mg, 150 mg, and 8 mg respectively) failed to curtail the aggression. ECT was considered, but staffing was unavailable due to surging COVID cases. As an alternative, Tab. Clonidine 0.1 mcg was initiated and titrated to 0.1 mcg BD in two days, along with monitoring of postural hypotension.

The patient showed remarkable improvement in YMRS score, which dropped to 20 in two days and did not require any SOS medications thereafter. After three days, the patient was discharged as in-patient services were shut due to staffing for COVID clinical care in the region. After one-week, further assessment was done through telephonic video consultation, remission was noticed (YMRS-4). In subsequent follow-up a week later, the YMRS score remained stable at 4. He was on T. Valproate It was planned to taper other antipsychotics upon the subsequent follow-up. Prior reports suggest that the absence of a family history of affective disorders and inadequate response to antipsychotics in the past predicts response to clonidine (0.3-0.9 mcg) (Zubenko et al. 1984, Hardy et al. 1986, Maguire & Singh 1987, Jouvent et al. 1988, Shaik et al. 2015). However, the index patient had no such history and showed response with 0.2 mcg itself.

## CONCLUSION

Hence, in resource constrained settings where ECT services are hampered due to the COVID-19 pandemic, clonidine may be an effective option for control of difficult to treat manic aggression and excitement.

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Jerry Abraham, Natarajan Varadharajan & Sushmitha Nachiyar design of the study, review of literature, manuscript writing, approval of final version.

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