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The Utilization of Low-Dose Clozapine as Mono-Therapy in the Treatment of Recurrent Catatonia: A Case Report

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Abstract

Catatonia represents one of the most severe manifestations of Schizophrenia. In this case report we detail the usage of a low dose of Clozapine in an individual with recurrent catatonic schizophrenia, and explore the evidence supporting the practice. Our case report illustrates that Clozapine may be useful, even at low doses, in treating, and preventing relapses of, Catatonic Schizophrenia that responds poorly to other treatment modalities.

Keywords: Clozapine; Symptoms; Patients

Introduction

Catatonia is an abnormal neuropsychiatric condition that affects both behaviour and motor function, and results in unresponsiveness in someone who otherwise appears to be awake. Catatonia is sometimes referred to as catatonic syndrome, because it is not just one identifying sign or symptoms that appear separately from one another, but rather a collection of several symptoms that appear together in same time. It can occur in various psychiatric disorders and substance-induced psychotic disorder. Catatonic schizophrenia is serious neurological or psychological condition in which two kinds of behaviours takes place are stupor and motor rigidity.

Case Presentation

The patient, Mr. L, is a 49-year-old Chinese man with recurrent bouts of catatonia since September 2016. A series of investigations, including a serum drug screen and MRI Brain, yielded no results suggestive of underlying organic pathology. The catatonic episodes abated after multiple sessions of Electroconvulsive Therapy (ECT), and high dose benzodiazepines (40 mg/day of Diazepam, or equivalent). Mr. L would report having auditory hallucinations and anxiety just prior to, and during these episodes, along with a feeling of his movements being controlled by external entities. Mr. L was also started on Risperidone, at doses of 4 mg/day, for control of his psychotic symptoms, and was diagnosed with Catatonic Schizophrenia. Despite these medications, Mr. L would frequently relapse into bouts of Catatonia.

It was thus decided, on his fourth admission, that Mr. L would be commenced on Clozapine. The Clozapine was up-titrated to 100 mg Nocte, while ECT continued simultaneously. Mr. L, however, developed, in quick succession, hyper-salivation with resultant aspiration pneumonia, and intestinal paralytic ileus. The clozapine was thus ceased, and these complications abated. However, as this happened, the symptoms of Catatonia, such as stupor and posturing, returned. Weighing the risks of adverse side effects against the concerns over a return of the catatonia, a gradual titration of clozapine to a low dose of 37.5 mg Nocte was performed and led to satisfactory results. Mr. L has been maintained on a low dose of clozapine, has been weaned off the benzodiazepines, and remains symptom free in the community.

Discussion

Clozapine is a serotonin-dopamine (5HT2A-D2) receptor antagonist effective for treatment resistant schizophrenia [1]. Despite its efficacy, its use is limited by side effects such as agranulocytosis, bowel infarction, myocarditis, diabetes, hyper-salivation and weight gain [2]. Many of these side effects are dose-dependent, limiting the usage of high doses of clozapine [3-11].

Literature on the use of clozapine in catatonia is limited. A case series by Chattopadhyay et al., shed some light on the utility of Clozapine in catatonia regardless of cause (caused by substance use, mood disorders or psychotic disorders) [2]. However, in their series, Clozapine was used at doses of up to 300 mg/day, substantially higher than what was used in our patient. In another study, Clozapine was used at a dose of 400 mg/day, in a patient who had not responded to benzodiazepines, ECT, Risperidone and Aripiprazole, and resulted in a complete resolution of the catatonia, with its effect postulated to have been via alterations of dopamine neurotransmission, and modulation of GABA and glutamate neurotransmission [10], looking at catatonia treatment in psychotic patients, found clozapine to be beneficial for six and likely beneficial for one, of seven patients treated following unsuccessful trials of lorazepam and other antipsychotic medications [4].

Conclusion

In our patient, the development of significant adverse effects at clozapine 100 mg Nocte (Naranjo score 6) necessitated the immediate cessation of clozapine [8]. Following an unsuccessful trial of other antipsychotics, the decision to restart clozapine gradually was made, with significant clinical improvement at a low dose. This case suggests a role for the use of low dose clozapine in catatonic patients who report adverse effects at higher doses of clozapine. Further studies will need to be done to further investigate the role of clozapine in catatonic patients.

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