

## Successful Treatment of Periodic Catatonia with Aripiprazole : A Case Report and Review of Treatment

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### Abstract

Periodic catatonia is a rare and challenging psychiatric syndrome characterized by recurrent episodes of motor disturbances. Understanding its management remains critical for improving patient outcomes. We hereby present a case of 20-year-old male who presented with recurrent periodic catatonia unresponsive to benzodiazepines and sensitive to standard antipsychotics. In this patient transitioning to aripiprazole at a low dose resulted in significant improvement, with no further hospitalizations or adverse effects. The case highlights the role of aripiprazole, a partial dopamine agonist, in managing refractory catatonia. Its efficacy, supported by similar cases in the literature, emphasizes its utility as an individualized treatment option. Aripiprazole offers a promising therapeutic alternative for periodic catatonia underscoring the importance of tailored interventions in achieving optimal outcomes.

**Keywords: Aripiprazole, Dopamine Agonist, Periodic Catatonia, Management.**

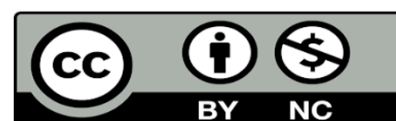
### INTRODUCTION

Periodic catatonia is a distinctive subset of catatonic disorders characterized by recurrent and episodic motor disturbances that may range from severe hypoactivity to hyperactivity. These periodic fluctuations pose diagnostic and therapeutic challenges for clinicians.<sup>1</sup> While catatonia can manifest as part of several psychiatric and neurological conditions its periodic nature adds complexity in terms of accurate diagnosis and management.

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Despite advances in psychiatry understanding the neurobiological underpinnings of periodic catatonia remains limited making it an under-recognized clinical entity. A high index of suspicion is needed in these cases given the periodic nature of motor disturbances seen in these cases.<sup>2</sup>

The condition is notably rare in pediatric populations with limited research elucidating its pathophysiology. Potential mechanisms involve disruptions in gamma-aminobutyric acid (GABAergic) transmission, glutamatergic dysfunction and other neurochemical abnormalities. Early recognition is essential to prevent complications such as chronicity and functional impairment.<sup>3</sup>

Clinically, periodic catatonia may present with motor symptoms, stupor and agitation. In many cases this periodic catatonia is accompanied by psychiatric symptoms like mood disturbances and psychosis. Diagnostic tools such as the Bush Francis Catatonia Rating Scale assist in confirming the condition and response to treatments like benzodiazepines or antipsychotics further corroborates the diagnosis.<sup>4</sup>

We here report a case of a 20-year-old male whose treatment with aripiprazole resulted in significant improvement showcasing the critical role of individualized pharmacological strategies in managing periodic catatonia. This case underscores the necessity of tailored treatment approaches.

### CASE REPORT

A 20-year-old male was diagnosed with periodic catatonia, first presenting in 2015 at the age of 12 years with manic symptoms and psychosis. He initially responded positively to olanzapine but experienced recurrent episodes in subsequent years. The episodes were characterized by worsening catatonic symptoms, necessitating multiple hospitalizations.

During the two months leading up to his December 2023 admission, the patient exhibited increasing frequency and severity of catatonic symptoms. He became resistant to lorazepam and diazepam therapy, experiencing side effects that included sedation and irritability without improvement in catatonia. On admission, his symptoms included immobility, staring spells, mutism, and intermittent

agitation. His Bush Francis Catatonia Rating Scale (BFCRS) score was 12, reflecting significant severity. Additionally, he displayed sensitivity to commonly used medications, complicating his management.

Given these challenges, the treatment approach was reevaluated. Recognizing the need for a medication with a favorable safety profile and the potential to address his refractory symptoms, aripiprazole was initiated at a low dose of 5 mg. The choice of aripiprazole was driven by its unique pharmacodynamic profile as a partial dopamine agonist, which could provide antipsychotic effects without exacerbating sedation or motor disturbances. The patient demonstrated a gradual and sustained improvement with this regimen. The aripiprazole dose was titrated to 10 mg over the course of two weeks, which resulted in marked symptom resolution. The catatonic features subsided significantly, and the patient regained the ability to engage in activities of daily living.

Throughout his hospitalization, the patient exhibited no adverse effects to aripiprazole. Follow-up over several months revealed continued stability, with no further hospitalizations or significant relapses reported. This positive response to aripiprazole highlights its efficacy in managing periodic catatonia, particularly in cases complicated by hypersensitivity to standard therapies like benzodiazepines and first-line antipsychotics. The successful outcome also underscores the importance of individualized treatment approaches in complex neuropsychiatric conditions.

### DISCUSSION

Catatonia is a neuropsychiatric syndrome spanning a spectrum of motor disturbances, often associated with psychiatric disorders or neurodevelopmental conditions.<sup>5</sup> Periodic catatonia, as observed in this patient, emphasizes the need for deeper understanding of its mechanisms. Neurobiological theories suggest involvement of GABAergic and glutamatergic pathways, making pharmacotherapy pivotal in management.<sup>6</sup>

First-line treatment often includes benzodiazepines like lorazepam, which are known for their rapid onset. In cases of resistance or intolerance, atypical antipsychotics, such as olanzapine and

aripiprazole, are utilized.<sup>7</sup> Aripiprazole, a partial dopamine agonist, offers a unique pharmacodynamic profile, minimizing adverse effects typically associated with antipsychotics.<sup>8</sup> In this patient, transitioning from olanzapine to aripiprazole proved successful, highlighting the importance of individualized treatment.

Similar cases reported in the literature reinforce the efficacy of aripiprazole in managing refractory catatonia. A study by Voros and Tényi explored its utility in catatonia resistant to other treatments, demonstrating its favorable outcomes.<sup>9</sup> Another report by Pompey and Januel highlighted its role in addressing periodic catatonia following benzodiazepine intolerance.<sup>10</sup> Non-pharmacological strategies, including electroconvulsive therapy (ECT) remain essential options in severe cases.

This case adds to the growing body of evidence supporting the role of aripiprazole in managing periodic catatonia, particularly in pediatric and adolescent populations. Collaborative care involving psychiatry and other specialties is crucial for optimizing outcomes in such complex cases.

## CONCLUSION

This case demonstrates the significance of tailoring pharmacological strategies in periodic catatonia, particularly when standard treatments are ineffective or poorly tolerated. Aripiprazole emerged as an important agent in improving symptom resolution and functional outcomes. This case report also underscores the importance of individualized care in managing complex psychiatric conditions.

## Conflict Of Interest

None

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## REFERENCES

1. Weder ND, Muralee S, Penland H, Tampi RR. Catatonia: a review. *Ann Clin Psychiatry*. 2008 Apr-Jun;20(2):97-107. doi: 10.1080/10401230802017092.
2. Belaizi M, Yahia A, Mehssani J, Bouchikhi Idrissi ML, Bichra MZ. Acute catatonia: Questions, diagnosis and prognostics, and the place of atypical antipsychotics *Encephale*. 2013 Jun;39(3):224-31.
3. Serrat F, Iglesias-Gonzalez M, Sanagustin D, Etxandi M, de Pablo J, Cuevas-Esteban J. Catatonia and Cognitive Impairments: A Systematic Review. *Front Psychiatry*. 2022 Jun 30;13:877566. doi: 10.3389/fpsyt.2022.877566.
4. Bush G, Fink M, Petrides G, Dowling F, Francis A. Catatonia. I. Rating scale and standardized examination. *Acta Psychiatr Scand*. 1996 Feb;93(2):129-36. doi: 10.1111/j.1600-0447.1996.tb09814.x.
5. Rogers JP, Zandi MS, David AS. The diagnosis and treatment of catatonia. *Clin Med (Lond)*. 2023 May;23(3):242-245. doi: 10.7861/clinmed.2023-0113.
6. Ariza-Salamanca DF, Corrales-Hernández MG, Pachón-Londoño MJ, Hernández-Duarte I. Molecular and cellular mechanisms leading to catatonia: an integrative approach from clinical and preclinical evidence. *Front Mol Neurosci*. 2022 Sep 29;15:993671. doi: 10.3389/fnmol.2022.993671.
7. Jha A. Resistant Catatonia in a 10-year-old Child: A Case Report. *JNMA J Nepal Med Assoc*. 2023 May 1;61(261):479-481. doi: 10.31729/jnma.8152. PMID: 37203901; PMCID: PMC10896447.
8. Sichert V, Volz HP. Rapid efficacy of aripiprazole in the treatment of catatonic depression/catatonia with consideration of the drug's unique receptor profile: a case report. *Fortschr Neurol Psychiatr*. 2021 Apr;89(4):178-181. English. doi: 10.1055/a-1183-3887. Epub 2020 Jun 23. PMID: 32575133.
9. Vörös V, Tényi T. Az aripiprazol alkalmazása katatóniában [Use of aripiprazole in the treatment of catatonia]. *Neuropsychopharmacol Hung*. 2010 Jun;12(2):373-6. Hungarian. PMID: 20606247.
10. Pommepuy N, Januel D. La catatonie: résurgence d'un concept. Une revue de la littérature internationale [Catatonia: resurgence of a concept. A review of the international literature]. *Encephale*. 2002 Nov-Dec;28(6 Pt 1):481-92. French. PMID: 12506260.

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