WORLD JOURNAL OF PHARMACY AND PHARMACEUTICAL RESEARCH

ISSN: XXXX-XXXX

Case Study

Impact Factor: 0.000

2025
Volume: 02
Issue: 10
Page: 44-48

CNS DEPRESSION IN COMPLEX PSYCHOSIS: A CASE REPORT ON DUAL SEDATION ADRS FROM CLONAZEPAM AND MAXGALIN

Rushil Mohan[1*], Joeann Marylin Wilson[2], Samrudh N[3], Dezney Remica Fernandes[4]

[1]Pharm D Intern, Department of Pharmacy Practice, Krupanidhi College of Pharmacy, Carmelaram-560035, Karnataka, India.

[2] Pharm D Intern, Department of Pharmacy Practice, Krupanidhi College of Pharmacy, Carmelaram-560035, Karnataka, India

[3] Pharm D Intern, Department of Pharmacy Practice, Krupanidhi College of Pharmacy, Carmelaram-560035, Karnataka, India.

[4]Pharm D Intern, Department of Pharmacy Practice, Krupanidhi College of Pharmacy, Carmelaram-560035, Karnataka, India.

Received: 21 August 2025 **Revised: 11 September 2025** **Accepted: 01 September 2025**

Corresponding Author: Rushil Mohan

Address: Pharm D Intern, Department of Pharmacy Practice, Krupanidhi College of Pharmacy, Carmelaram-560035, Karnataka, India. **Email ID:** rushilmohan2001@gmail.com,

ABSTRACT

This case report highlights the challenges of psychotropic polypharmacy in a 36-year-old female patient with chronic Paranoid Schizophrenia and co-morbid Type 2 Diabetes Mellitus and Hypothyroidism. To manage her acute psychotic symptoms, she was placed on a complex regimen including Clozapine, Aripiprazole, and adjuvants. During hospitalization, the patient experienced two distinct, significant Adverse Drug Reactions (ADRs) related to central nervous system (CNS) depression: Excessive Sedation attributed to Clonazepam (a benzodiazepine) and a subsequent episode of Sedation linked to Maxgalin (likely Gabapentin). These events underscore the heightened risk of cumulative sedative effects when combining medications in complex psychiatric cases. Prompt recognition and de-prescribing of the suspected agents were essential for mitigating patient morbidity, preventing non-adherence, and ultimately facilitating functional recovery. This case emphasizes the critical role of vigilant pharmacovigilance in balancing therapeutic efficacy with drug safety for achieving long-term stability in chronic schizophrenia management.

INTRODUCTION

Paranoid Schizophrenia often necessitates complex, multi-drug regimens (polypharmacy) to manage heterogeneous symptoms, especially in cases complicated by chronic comorbidities like Type 2 Diabetes Mellitus and Hypothyroidism.[3] While antipsychotics and adjunctive agents are crucial for therapeutic effect, the concurrent use significantly increases the risk of Adverse Drug Reactions (ADRs).[8] Among these, sedation and somnolence are common but highly problematic side effects, often leading to poor functional outcomes, increased morbidity (e.g., falls), and, most critically, non-adherence.[5] Benzodiazepines, such as clonazepam, are frequently employed for short-term anxiety and agitation control due to their rapid onset.[6] However, their combination with other CNS depressants, including novel adjuvants, necessitates meticulous pharmacovigilance. This case report details the management of a 36-year-old female with Paranoid Schizophrenia who experienced two distinct sedation-related ADRs during her acute hospitalization, illustrating the imperative need to balance clinical efficacy with drug safety.

Case Presentation and Clinical Course

The patient, Ramadevi, a 36-year-old female, was admitted to the Psychiatry Department with a provisional and final diagnosis of Paranoid Schizophrenia, a condition she has suffered from for 7 years. Her chief complaints included suspiciousness, anger outbursts toward her husband, and active symptoms of psychosis, all ongoing for approximately one month. Relevant past medical history included T2DM and Hypothyroidism.

To control her acute symptoms and manage her chronic conditions, the patient was initiated on a complex regimen, including Clozapine (an antipsychotic with known sedative effects), Aripiprazole, and a benzodiazepine (Clonazepam), alongside Tab THP, Tab Metformin, and Tab Thyronorm.

Critical Adverse Drug Reactions (ADRs) and Management

During her hospitalization, the patient experienced two distinct episodes of sedation attributed to different agents, underscoring her heightened sensitivity to CNS depressants:

1. **Excessive Sedation from Clonazepam:** On January 17, 2025, the patient developed **excessive sedation**. This reaction was strongly suspected to be caused by the benzodiazepine, **T. Clonazepam** (0.5 mg), which was being used to control anxiety and disturbed sleep. Excessive sedation is particularly challenging as it interferes with daytime functioning, patient engagement in psychoeducation, and increases the risk of falls or aspiration. The

prompt recognition and subsequent temporary withdrawal of Clonazepam led to the resolution of the excessive sedation by January 19, 2025.

2. **Sedation from Maxgalin (Gabapentin):** A second, subsequent ADR involved general sedation attributed to T. Maxgalin (75 mg). Maxgalin (likely Gabapentin, a nerve-pain/mood adjuvant) carries a known risk of causing drowsiness and sedation, effects compounded by the patient's pre-existing polypharmacy. This ADR further demonstrated the cumulative sedative burden imposed by the combination therapy. Following the withdrawal of the suspected Maxgalin dose, the patient's complaints of sedation subsided, and the ADR was resolved by January 28, 2025.

DISCUSSION

The patient’s two episodes of sedation—one attributed to Clonazepam and another to Maxgalin (likely Gabapentin)—highlight a common clinical challenge in treating psychotic disorders: the compounding effect of CNS depressants.[7] Benzodiazepines like clonazepam are potent GABAA agonists and, while clinically useful for agitation and insomnia in psychosis[6], their sedative profile is often intensified when combined with antipsychotics (like Clozapine and Aripiprazole).[4] The first ADR demonstrates this heightened sensitivity, where Clonazepam, even at a standard dose, induced excessive sedation, an adverse effect frequently reported in this patient group.[1]

The subsequent ADR linked to Maxgalin (Gabapentin) further underscores the risk of polypharmacy. These adjunctive medications are increasingly used for various symptoms in psychiatric settings, yet they are known to cause dose-related sedation and dizziness.[7] The cumulative pharmacological load, rather than a single agent's primary effect, is often responsible for adverse CNS outcomes, which can lead to therapeutic failure.[3] Rapid identification and withdrawal of the suspected agents (Clonazepam and Maxgalin) were essential steps that aligned with pharmacovigilance best practices.[2] By eliminating the source of intolerable side effects, the clinical team mitigated the risk of non-adherence, which is a major predictor of relapse and poor functional recovery in chronic schizophrenia.[5, 8] This case reinforces that meticulous ADR monitoring and the cautious titration of sedative adjuvants are fundamental to achieving long-term stability and functional remission.[1]

CONCLUSION

The successful stabilization of this patient with Paranoid Schizophrenia hinged not only on the efficacy of the core antipsychotic and mood-stabilizing agents but also on the meticulous

pharmacovigilance of drug-induced sedation. Prompt identification and withdrawal of both Clonazepam and Maxgalin were crucial steps, preventing unnecessary morbidity and allowing the treatment team to refine the polypharmacy regimen. This case emphasizes that in patients with chronic psychiatric and metabolic comorbidities, vigilance against cumulative sedative effects is paramount for achieving functional recovery and ensuring long-term medication adherence.

REFERENCES

1. Ramasubbu SK, Mishra A, Mandal S. Prevalence of QT-Prolonging Drug-Drug Interactions in Psychiatry: A Systematic Review and Meta-Analysis. Journal of Pharmacy Practice, 2022 Aug 14; 089719002211213. DOI: 10.1177/08971900221121371
2. Højlund M, Köhler-Forsberg O, Gregersen AT, Rohde C, Mellentin AI, Anhøj SJ, et al. Prevalence, correlates, tolerability-related outcomes, and efficacy-related outcomes of antipsychotic polypharmacy: a systematic review and meta-analysis. The Lancet Psychiatry [Internet], 2024 Dec; 11(12): 975–89. Available from: https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(24)00314-6/fulltext
3. Zheng W, Dong Bin Cai, Yang X, Li L, Zhang QE, Ng CH, et al. Short-term efficacy and tolerability of lurasidone in the treatment of acute schizophrenia: A meta-analysis of randomized controlled trials. Journal of Psychiatric Research, 2018 Aug 1; 103: 244–51.
4. Suzuki T, Uchida H, Takeuchi H, Nomura K, Tanabe A, Watanabe K, et al. Simplifying psychotropic medication regimen into a single night dosage and reducing the dose for patients with chronic schizophrenia. Psychopharmacology, 2005 Jul 1; 181(3): 566–75.10.1007/s00213-005-0018-3
5. Wolff J, Hefner G, Normann C, Kaier K, Binder H, Hiemke C, et al. Polypharmacy and the risk of drug–drug interactions and potentially inappropriate medications in hospital psychiatry. Pharmacoepidemiology and Drug Safety, 2021 Jun 24; 30(9): 1258–68
6. Pinikahana J, Happell B, Taylor M, Keks NA. EXPLORING THE COMPLEXITY OF COMPLIANCE IN SCHIZOPHRENIA. Issues in Mental Health Nursing, 2002 Jan; 23(5): 513–28.DOI: 10.1080/01612840290052677
7. Arto Puranen, Koponen M, Antti Tanskanen, Jari Tiihonen, Taipale H. Use of antidepressants and mood stabilizers in persons with first-episode schizophrenia. European Journal of Clinical Pharmacology, 2020 Jan 15; 76(5): 711–8. DOI: 10.1007/s00228-020-02830-2

8. Bioque M, Llerena A, Cabrera B, Mezquida G, Lobo A, González-Pinto A, et al. A Pharmacovigilance Study in First Episode of Psychosis: Psychopharmacological Interventions and Safety Profiles in the PEPs Project. International Journal of Neuropsychopharmacology, 2015 Oct 27; 19(4): pyv121.10.1093/ijnp/pyv121