



## A long-term case of bipolar affective disorder in a 61-year-old male: Challenges in medication adherence and treatment response

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### Abstract

Bipolar affective disorder (BD) is a chronic psychiatric illness characterized by recurrent episodes of mania and depression. Long-term management is often complicated by poor medication adherence, treatment side effects, and comorbid medical illnesses. We report a case of a 61-year-old male with a 40-year history of BD, hypertension, and type 2 diabetes mellitus, whose illness course was marked by frequent relapses related to poor medication adherence. Early years were characterized by frequent manic episodes, reduced with pharmacotherapy and electroconvulsive therapy (ECT). Later, Olanzapine and Valproate provided partial stability but adherence remained inconsistent. High-dose Olanzapine (40 mg/day) yielded improved control but required close monitoring for adverse effects. ECT was beneficial in treatment-resistant phases but not sufficient without pharmacotherapy. Comorbidities and side effects complicated long-term management, highlighting the need for individualized dosing and a multidisciplinary approach. Sustained treatment adherence, proactive side effect management, and holistic care addressing both psychiatric and physical health are essential for long-term stability in BD.

**Keywords:** Bipolar affective disorder, medication adherence, olanzapine, valproate, electroconvulsive therapy, comorbidity

### Introduction

Bipolar Affective Disorder (BD) is a chronic and often debilitating mental health condition characterized by recurrent mood episodes, including manic and depressive phases [1]. The course of BD can be complicated by issues such as poor medication adherence, side effects from treatments, and the presence of comorbid medical conditions [2, 3, 4]. This case report focuses on a 61-year-old male with a 40-year history of BD, highlighting the impact of medication adherence, psychosocial stressors, and comorbid conditions such as hypertension and type 2 diabetes mellitus on the progression and management of his illness.

### Case Summary

A 61-year-old Hindu male from a rural background, formerly a farmer and currently not employed, was diagnosed with Bipolar Affective Disorder (BD) at age 21. His premorbid adjustment was well-adjusted socially and occupationally, with no known psychiatric illnesses in his first- and second-degree relatives. The patient has a history of hypertension (HTN) and type 2 diabetes mellitus (T2DM) for the past five years. His current episode presents as a manic episode with psychotic features, including elevated mood, increased energy, impulsivity, grandiosity, delusions, auditory and visual hallucinations, and wandering behavior. Over the course of the next 40 years, the patient experienced frequent episodes of BD, particularly during periods of medication non-adherence. In the early stages, the patient experienced approximately two episodes per year, with recovery occurring between episodes. The first three years of illness were marked by a lack of medication, contributing to frequent and less stable episodes. The subsequent 15 years saw a reduction in episode frequency to approximately

one per year, following the introduction of pharmacological treatment, including lithium, risperidone, and amisulpride, although medication adherence was poor and side effects were often intolerable.

Electroconvulsive therapy (ECT) was employed during these years, playing a significant role in reducing relapse rates and improving symptoms. However, as treatment continued, the patient's medication trials became more complicated due to side effects and a tendency to discontinue medications, leading to an increase in episode frequency.

In the last 10 years, the patient experienced 6-8 episodes. Medication trials during this period included Olanzapine, which was initially prescribed at 20 mg, but the dose was later increased to 40 mg by the patient's caregiver to further control symptoms. The patient responded well to Olanzapine at the higher dose, achieving improved stability with fewer episodes. In addition, Valproate 1500 mg was introduced and well-tolerated, though side effects emerged when the dose was increased to 2500 mg, including drooping of saliva and confusion.

Despite partial symptom relief from Olanzapine and Valproate, adherence to treatment continued to be a significant issue for the patient. This problem persisted even during the last five years of illness, during which the patient experienced six episodes requiring multiple hospitalizations.

### Discussion

This case emphasizes the critical role that medication adherence plays in the course of Bipolar Affective Disorder (BD). Throughout the patient's 40-year history, poor adherence to prescribed treatments significantly contributed to the increased frequency of episodes and hospitalizations. While medications like Olanzapine and Valproate were

effective in symptom management when adhered to, consistent monitoring and treatment adjustments were necessary to minimize relapse rates<sup>[5, 6]</sup>.

Olanzapine, initially prescribed at 20 mg, was ineffective in controlling the patient's manic symptoms. However, when the dosage was increased to 40 mg, the patient experienced substantial improvement in symptoms, including reduced mania and psychotic features. This response is notable, as the maximum recommended dose of Olanzapine is typically 20 mg, but individualized dosing may be required in certain patients,<sup>[7, 8]</sup> especially those who do not respond adequately to standard doses the increased dosage led to symptom control and greater stability, though it also highlighted the need for careful long-term monitoring for potential side effects such as metabolic changes.

The role of Electroconvulsive Therapy (ECT) in the early years of treatment was significant, with ECT being an effective option for reducing relapse rates and improving symptoms, particularly in treatment-resistant cases.<sup>2-4</sup> However, the success of ECT was hindered by poor medication adherence in subsequent years, indicating that a multidisciplinary approach, involving both pharmacological and non-pharmacological treatments, is crucial for managing BD in the long term.

Medication side effects, particularly with lithium, risperidone, and valproate, presented substantial challenges for the patient. Adverse effects, such as weight gain, sedation, and confusion, often led to discontinuation or dose adjustments, which in turn contributed to poor adherence. This underscores the importance of balancing the efficacy of medications with their tolerability, particularly in older patients with comorbid conditions like hypertension and type 2 diabetes.

The patient's comorbidities, specifically hypertension and type 2 diabetes, further complicated the management of BD. These conditions may influence both the pharmacodynamics of psychiatric medications and the patient's overall treatment adherence<sup>[3, 6]</sup>. Managing both psychiatric and medical conditions simultaneously is essential for improving the long-term prognosis of patients with BD<sup>[8]</sup>.

Psychosocial stressors, including rural isolation and limited access to mental health care, may have contributed to the patient's treatment gaps and exacerbated his illness. The involvement of a caregiver who actively adjusted medication doses was critical to symptom management, but the challenge of maintaining consistent adherence remained<sup>[9]</sup>.

## Conclusion

**Medication Adherence is Essential for Long-Term Stability:** Consistent adherence to medications like Olanzapine and Valproate is critical for controlling BD episodes and reducing hospitalizations. Non-adherence has a direct impact on disease progression and stability<sup>[2, 3, 6]</sup>.

**Electroconvulsive Therapy (ECT) Remains an Effective Treatment Option:** ECT is a valuable tool in managing BD, particularly in cases where pharmacological treatments are insufficient or poorly tolerated. It can provide symptom relief in treatment-resistant cases<sup>[2, 4, 7]</sup>.

## Medication Side Effects Must Be Carefully Managed:

Medication side effects, especially with long-term use of agents like lithium and valproate, can severely impact adherence and long-term management. Regular monitoring, dose adjustments, and switching medications may be necessary to achieve a balance between efficacy and tolerability<sup>[3, 6]</sup>.

**A Holistic, Multidisciplinary Approach to Treatment is Crucial:** A comprehensive treatment strategy addressing both psychiatric and medical comorbidities, psychosocial stressors, and consistent follow-up care is necessary for managing BD over several decades. Family involvement and continuous monitoring of treatment adherence are key factors in maintaining stability<sup>[4, 8, 9]</sup>.

This case highlights the complexities involved in managing BD, particularly in older patients with comorbid conditions. It underscores the importance of individualized care, medication adherence, and a multidisciplinary approach to treatment to improve outcomes and quality of life for patients with BD.

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