

# Effectiveness of Quetiapine as a Mood Stabilizer: A Case Series

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## ABSTRACT

**Introduction:** Bipolar affective disorder (BD) had a chronic episodic course with recurrent episodes of mania or depression, leading to socio-occupational dysfunction. Standard pharmacology is dependent on conventional mood stabilizers, such as lithium, divalproex sodium, and carbamazepine. The role of atypical antipsychotics is more as a first-line adjunct in manic episodes. Recently, the evidence in Europe and America is favoring for use of Quetiapine as a primary mood stabilizer for all phases and episodes of bipolar illness and has even been incorporated in clinical practice guidelines of some countries, including the recent Canadian Network for Mood and Anxiety Treatment 2018 guidelines (CANMAT). However, the prescribing pattern of Indian Psychiatrists weighs heavily on time-tested conventional mood stabilizers during acute episodes as well as during maintenance phases.

**Methodology:** In order to understand and assess the effectiveness of quetiapine as a monotherapy in any phase of bipolar affective disorder without compromising the standard of care and as per clinical requirements, quetiapine was instituted/switched to 14 patients of BD in any phase of illness.

**Results:** Two patients in manic episode, four patients in depressive episode, and one patient in mixed episode attained complete remission with quetiapine monotherapy. Medications of six patients were successfully switched from conventional mood stabilizers to quetiapine monotherapy without any signs of relapse. One patient already maintaining remission on a combination of quetiapine and valproate was continued on the same regimen due to patient preference. All patients, whether in the acute phase or maintenance phase, were noted to be in remission on maintenance dosages of 300 mg/day.

**Conclusion:** Quetiapine monotherapy is effective in acute phases and long-term stabilization of BD and is a welcome drug for the Indian population also. But our findings differed from CANMAT 2018 guidelines in that, quetiapine as a mood stabilizer in monotherapy appears to be more promising in the maintenance phase of BD and only as an adjunct for acute phase management.

**Keywords:** Bipolar disorder, Effectiveness, India, Maintenance phase treatment, Monotherapy, Quetiapine.

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## INTRODUCTION

Bipolar affective disorder (BD) is a major mental illness that runs a chronic episodic course. The lifetime prevalence of BD for individuals is 1–2%.<sup>1</sup> Studies suggest evidence of higher rates in low-income, unemployed, and unmarried groups. Also, higher socioeconomic status and higher occupational level, as well as creativity, are associated with an increased risk of BD.<sup>2,3</sup> These findings are important in the Indian context, which is experiencing a change in social and economic paradigms.<sup>4</sup>

Akin to seizures, each untreated episode of BD leads to an increase in frequency, severity, and duration of the successive episode, hypothesized to be mediated through the Kindling phenomena.<sup>5,6</sup> It hastens damage due to neuronal inflammation even in asymptomatic interepisodic intervals and can result in rapid cycling, which itself is a poor prognostic factor.<sup>7–9</sup>

Prophylaxis for BD has been dominated by conventional mood stabilizers like lithium and valproate, owing to time-tested effectiveness and tolerability. Quetiapine is a second-generation antipsychotic agent that was FDA-approved for treatment of the schizophrenia in 1997.<sup>10</sup> The pharmacological profile of quetiapine suggests its properties extend beyond antipsychotic action to antidepressant, anxiolytic, and mood-stabilizing effects.<sup>11</sup> It has a high affinity for 5-HT<sub>2</sub>, histamine H<sub>1</sub>,  $\alpha_1$ , and  $\alpha_2$  adrenergic receptors; a moderate affinity for 5-HT<sub>1A</sub> receptors; a moderate affinity for D<sub>2</sub>; and a low affinity for D<sub>1</sub>. Its atypicality is in its binding

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profile at different doses. At antipsychotic doses (up to 800 mg/day), it acts at multiple serotonergic, muscarinic, and  $\alpha$ -adrenergic receptors. At antidepressant doses (up to 300 mg/day), its action is more selective at norepinephrine reuptake inhibition, 5HT<sub>1A</sub> partial agonism, and 5HT<sub>2A</sub>,  $\alpha_2$ , 5HT<sub>2C</sub>, and 5HT<sub>7</sub> antagonism. At sedative hypnotic doses (50 mg/day), it causes H<sub>1</sub> antagonism.<sup>12–14</sup> The antidepressant efficacy of quetiapine monotherapy in bipolar I and II depression was established in BipOLar DepResion (BOLDER) I and II trials and was subsequently confirmed in Efficacy of Monotherapy Seroquel in BipOLar Depression (EMBOLDEN)

I and II trials.<sup>15–18</sup> Quetiapine finally got approval from FDA for BD depression in 2008.<sup>19</sup> A recent meta-analysis did not find any difference in the efficacy and safety of quetiapine and lithium for bipolar depression.<sup>20</sup> With respect to manic episodes, the efficacy of quetiapine stood the test of real-world circumstances,<sup>12</sup> and it was included as a first-line mood stabilizer by CANMAT guidelines for BD. The evidence is consolidating fast, and recent studies have authenticated the effectiveness of quetiapine in acute and maintenance phases of mania.<sup>21–23</sup>

NICE guidelines and Indian Psychiatric Society–Clinical Practice Guidelines for Bipolar depression support use of lithium and other anticonvulsants for prophylaxis and support evidence for various serotonin–dopamine antagonists as adjunctive treatment, whereas CANMAT guidelines give level I evidence for quetiapine for treatment as well as prophylaxis of any mood episode.<sup>24–26</sup>

Despite the plethora of evidence regarding the efficacy of quetiapine in BD, its use in India has primarily been as an adjunct to other mood stabilizers. Literature regarding the outcomes of its use as monotherapy in BD in the Indian context is further scant. A study evaluating the prescribing pattern of mood stabilizers by Indian psychiatrists found that the majority (85%) of psychiatrists referred to various clinical guidelines, but their ultimate choice of medication was inspired by personal experience.<sup>27</sup> In another Indian study that evaluated the prescription pattern of patients with BD, quetiapine was used only in the capacity of an additive antipsychotic (11%) to conventional mood stabilizers lithium and/or valproate of mood stabilizer role of quetiapine as an antipsychotic rather than mood stabilizer.<sup>28,29</sup>

In order to understand the effectiveness of quetiapine predominantly as monotherapy in acute and maintenance phases of manic as well as depressive episodes of BD in the Indian population, we administered quetiapine monotherapy to 14 patients of BD irrespective of the phase of illness. This was in consensus with recent CANMAT guidelines 2018, without compromising or depriving any patient standard of care.<sup>25</sup>

## CASE I

A 70-year-old male, a priest with no family history of any psychiatric illness, was diagnosed with cervical spondylosis in July 2019 and treated with pregabalin and mecobalamin since July 2019. Also, he had a case of benign prostatic hypertrophy with onset in September 2019, on tamsulosin and dutasteride since then. He had a history of BD, onset in 1999 at 49 years of age when he had manifested with an episode of mania with psychotic symptoms necessitating inpatient treatment with parenteral olanzapine, sertraline, and electroconvulsive therapy. He had complete resolution of symptoms in 2 weeks. He discontinued treatment after 5 months and was asymptomatic till March 2019, when he had another episode of mania with psychotic symptoms necessitating inpatient treatment and institution of olanzapine 5 mg and divalproex sodium 1000 mg/day. He was maintaining improvement till around the first week of July 2020, when despite compliance with treatment, he developed persistent and pervasive sadness of mood, easy fatigability, and anhedonia. Over the next 2 weeks, his symptoms worsened. He developed a firm and unshakeable belief that as a priest, he had committed the sin of tonsuring his head (not considered as wrong in his culture). He would hear disembodied voices cursing him and had a belief that he is being rightly punished by the goddess for this act. He would remain aloof in his room throughout the day, stopped taking meals, and stopped his daily ablutions. General physical

exam and systemic examination were normal. A mental system examination revealed a shabbily dressed, disheveled individual with severe psychomotor retardation, low-volume monotonous speech with reduced verbal output, early-morning worsening of mood, depressed affect with decreased range and reactivity, poverty of thought with the delusion of guilt, retrospective falsification, and ideas of self-reproach. The patient had fleeting 2nd-person auditory hallucinations of multiple known persons cursing him and directing him to die. His cognitive evaluation revealed an oriented individual with ill-sustained concentration. He had impaired insight, fragmented sleep with terminal insomnia, and reduced energy, appetite, and libido.

Hematological and biochemical parameters were normal. Non-contrast computed tomography head was normal scan. As per the interview and clinical criteria vide International Classification of Diseases–Tenth Revision (ICD-10), he was diagnosed as a case of BD, current episode severe depression with psychotic symptoms. Baseline Hamilton Depression Rating Scale (HAM-D) revealed a score of 43 (suggestive of severe depression).

In view of the recurrence of illness in the maintenance phase with combination pharmacotherapy of olanzapine and divalproex, an inpatient treatment with quetiapine was initiated, and cross-tapering of olanzapine 5 mg and divalproex sodium 1000 mg to quetiapine 600 mg/day over 3 weeks was done. Hamilton Depression Rating Scale score at 2 and 4 weeks after initiation of treatment was 24 and 13, respectively. After 8 weeks of treatment, his symptoms resolved completely, and he remains in remission on maintenance quetiapine monotherapy 300 mg/day till date.

## CASE II

A 54-year-old male, physiotherapist, with no family history of any psychiatric illness, manifested in December 2020 with overtalkativeness, irritability, and decreased need for sleep in the background of a property dispute. By February 2021, he developed increased sense of well-being, increased energy and flight of ideas, loss of social inhibition, and decreased need for sleep (less than 4 hours per day as compared with earlier 7–8 hours/day). He had similar symptoms in 2007 and 2013, which resolved without treatment. General physical exam and systemic examination were normal.

Mental status examination (MSE) revealed overfamiliar individuals, disinhibited, using slang, and taking the interviewer very casually. He was physically restless, speech was increased in rate, tone, and volume. He described his mood as excellent, and his affect was elated. He had inflated self-esteem. Energy was increased, and there was reduced need for sleep. He was diagnosed as a case of BD, current episode mania (ICD-10). The pretreatment Young Mania Rating Scale (YMRS) revealed a score of 31, suggestive of severe mania. He was started on quetiapine 100 mg, which was uptitrated to 600 mg/day over 10 days. Young Mania Rating Scale score after 1 week of treatment was 20, and that after 2 weeks of treatment was 4. His symptoms resolved completely within 15 days, and he is in remission on maintenance quetiapine monotherapy till date.

## CASE III

A 27-year-old male, engineering student, with no family history of any psychiatric illness, history of BD since 2008, reported to Psychiatry OPD in February 2021 with complaints of significant weight gain of 10 kg in the last 12 months. His first episode was mania without psychotic symptoms, followed by mania and

depressive episode in 2009 with 3 months of symptom-free intervals. He again had an episode of severe depression in 2011 and mania without psychotic symptoms in 2014 and 2016. In 2016, he was started on lithium 900 mg/day and divalproex 1000 mg/day, with which he achieved remission. During his current evaluation, he was detected to have lithium-induced hypothyroidism.

In view of lithium-induced hypothyroidism, significant weight gain, and the patient's preference for a change of medication, both lithium and divalproex were tapered off and quetiapine was started with daily doses of 150 mg and gradually built up to 600 mg daily. He tolerated the switching of medications, and his TSH levels normalized within 3 months. He is on regular OPD follow-up and is in remission on maintenance quetiapine monotherapy.

#### CASE IV

A 31-year-old male with no family history or past history of any psychiatric illness manifested in August 2020 with low mood, loss of memory, and insomnia of 6 months duration.

Detailed history revealed that in February 2020, a week prior to his marriage, due to arrangements for the ceremony, he could not sleep well. Two to three days before the marriage, he developed cheerfulness, restlessness, and undue joviality. He was noted by his family members to be excessively restless, overtalkative, and not following social etiquettes, which was not his usual self. He was also noted to be very irritable and getting aggressive on trivial issues. He had reduced need for sleep and had racing thoughts with multiple big plans. On the day of marriage, he was admitted in a civil hospital and was managed as a case of mania without psychotic symptoms with olanzapine 10 mg/day, clozapine 100 mg/day, and parenteral lorazepam. His symptoms resolved completely in 2–3 weeks, and he stopped medications and lost to follow-up.

In March 2020, he developed insidious onset of gradually progressive sadness of mood, lack of interest in pleasurable activities, and easy fatigability. This was in the absence of any substance use. Gradually by April 2020, he had difficulty concentrating on routine tasks and would often commit mistakes. He also developed terminal insomnia, poor self-image, feelings of worthlessness, and episodic anxiety attacks that led him to self-report for psychiatric consultation. Mental status examination revealed reduced psychomotor activity and downcast gaze with poor eye contact. Speech was low volume and monotonous. Mood was described as sad throughout the day. Affect was noted to be depressed. Thoughts were goal-directed. His thought content revealed reduced self-esteem, helplessness, and worthlessness. His cognitive evaluation revealed an oriented individual with ill-sustained concentration, intact judgment, and insight. He had deranged biobdrives in the form of fragmented sleep with terminal insomnia, reduced energy, appetite, and libido. He was diagnosed as a case of BD, current episode moderate depression (ICD-10). Hamilton Depression Rating Scale revealed a score of 44, suggestive of severe depression. He was managed with quetiapine gradually uptitrated to 300 mg/day. The first follow-up of HAM-D after 2 weeks of treatment revealed a score of 24, and the second follow-up after 4 weeks of treatment showed a reduction to 11. His symptoms were relieved within 2 months and he was discharged in September 2020. Till date, he is in on maintenance quetiapine monotherapy.

#### CASE V

A 44-year-old female, housewife, was diagnosed with BD in 1997. She had more than 10 relapses of mania and depression in the last 20

years primarily due to poor treatment adherence. She is also under treatment for hypothyroidism (onset in 2005) and type 2 diabetes mellitus (diagnosed in 2017). She manifested severe depressive episodes with psychotic symptoms in 2018 and was treated with lithium 600 mg/day, quetiapine 300 mg/day, and propranolol 40 mg/day. Around February 2021, while in remission on medications, she developed debilitating tremors. After ruling out other possible causes, she was considered to have lithium-induced tremors.

In view of hypothyroidism, type-II diabetes mellitus, tremors and polypharmacy, a trial of quetiapine monotherapy was given, and lithium was gradually tapered off. Tab Quetiapine was built up to 600 mg/day. In next 4 weeks, her tremors resolved and she continued to be in remission. Presently she is maintaining remission on quetiapine monotherapy till date.

#### CASE VI

A 24-year-old male graduation student, BD, onset in 2014 with depressive episode, which was treated with sertraline (dosage and duration unknown) and was maintaining well till the end of 2014. In 2015, while off medications, he had mania with psychotic symptoms, which was treated with lithium 900 mg/day and olanzapine 10 mg/day. He was compliant with the medications till 2017 when his medications were gradually stopped. In 2018, he had an episode of mania with psychotic symptoms and was treated with quetiapine 200 mg/day with divalproex 1500 mg/day. In October 2020, while in remission on maintenance medications, he complained of excessive weight gain (>10 kg in 12 months) and hairfall. He requested for change of medication.

Keeping in view of the clinical condition and patient's preference for a change in medication, he was given a trial of quetiapine monotherapy, and divalproex 1000 mg/day was gradually switched to quetiapine 400 mg/day. The patient continued to be in remission and had reduction in his hair loss. The patient is in regular follow-up and is maintaining remission.

#### CASE VII

A 35-year-old male, industrial worker, had an episode of hypomania in 2010 and depression in 2011. His first hospitalization was in July 2015 for mania without psychotic symptoms, for which he was treated with divalproex 1000 mg/day. He was maintaining remission on divalproex 750 mg/day till November 2017. He became noncompliant with medications in 2018 and had a manic episode in September 2019, which was treated with risperidone 2 mg/day and divalproex 1 mg/day. He developed depressive symptoms in January 2020 despite compliance with treatment. He was diagnosed as a case of BD – current episode moderate depression (ICD-10). Hamilton Depression Rating Scale revealed a score of 36, suggestive of severe depression. In view of the relapse of illness despite prophylaxis, his medications were switched to quetiapine uptitrated to 300 mg/day. The first follow-up of HAM-D after 2 weeks of treatment revealed a score of 24, and the second follow-up after 4 weeks of treatment showed a reduction to 10. He had remission of illness and was maintaining remission on quetiapine monotherapy.

#### CASE VIII

A 46-year-old male, a case of BD, with a history of hypomania in 2013, mania in 2016, and depression in 2018, in remission on treatment with olanzapine 2.5 mg HS, lithium 600 mg/day, escitalopram 10 mg/day, and propranolol 40 mg/day since 2018, reported for follow-up

in Psychiatry OPD in March 2021. He was in remission. On evaluation, he had signs suggestive of nephropathy. In order to mitigate the renal adverse effects of lithium, he was shifted to quetiapine that was gradually uptitrated to 600 mg/day. The patient tolerated the change of medication without signs of relapse. He continued to be in remission on maintenance quetiapine monotherapy.

### CASE IX

A 35-year-old male, a case of BD with onset in 2010, lost his job in 2018, due to multiple relapses in the background of noncompliance of medications. In November 2020, he developed acute-onset undue irritability and aggression, decreased need for sleep, and increased religiosity. His MSE revealed easy distractibility, irritability, increased motor activity, and speech increased in rate, tone, and volume effect was euphoric and increased in range and reactivity and inappropriate to situation at times. His thinking had a flight of ideas and delusion of grandiose ability. Insight and judgment were impaired, and biodrives were deranged. He was diagnosed as a case of BD, current episode mania with psychotic symptoms (ICD-10). Baseline YMRS score was 34 (severe mania). He was started on quetiapine 100 mg uptitrated to 600 mg/day in 7 days. Young Mania Rating Scale after 1 week of treatment was 16, and at the second follow-up after 2 weeks, it was 2. He achieved complete remission in 3 weeks. He is on regular OPD follow-up now and is maintaining remission on quetiapine monotherapy 300 mg/day till date.

### CASE X

A 53-year-old male, with a history of depressive episodes in 2017 and 2020 and manic episodes in 2018, reported in February 2021 with sadness of mood, worthlessness, loss of interest in past pleasurable activities, lack of confidence, and sleep disturbances in the form of initial insomnia, and early-morning awakening despite on lithium 450 mg/day, olanzapine 5 mg/day, fluoxetine 40 mg/day, and lurasidone 20 mg HS.

His MSE revealed psychomotor retardation, depressed affect with reduced range and reactivity, and depressive cognitions in the form of helplessness with deranged biodrives. He was diagnosed as a case of BD, current episode moderate depression (ICD-10). The pretreatment psychometric assessment using Hamilton Depression Rating Scale 17-item scale (HAM-D) revealed a score of 22 (moderate depression). His medications were augmented with quetiapine that was gradually uptitrated to 600 mg/day. Lithium was maintained in the same dosages. Olanzapine, fluoxetine, and lurasidone were stopped gradually. At the first follow-up after 2 weeks, the HAM-D score was 12, and after 4 weeks of treatment, it reduced to 4. The patient achieved remission in 4 weeks and is maintaining remission on maintenance medications till date.

### CASE XI

A 54-year-old male, first diagnosed with BD in 2010, is also having primary hypertension, type 2 diabetes mellitus, obesity, and dyslipidemia. He had four relapses of mania and depression in the past 10 years. All these episodes were either preceded by a planned reduction in dosages/tapering off mood stabilizers or nonadherence with treatment. The last episode was mania in 2020, which was treated with lithium 900 mg and quetiapine 100 mg/day. On monthly follow-up in March 2022, he was noted to have developed lithium-induced digital tremors. Also, investigations revealed creatinine clearance of 76 mL/min (suggestive of nephropathy). Serum lithium levels were 1.1 mmol/L. In order

to halt and further limit the adverse effects of lithium, he was completely switched to quetiapine that was uptitrated to 600 mg/day in 2 weeks. The patient tolerated the change of medication without signs of relapse. Till date, he is in remission on maintenance quetiapine monotherapy 300 mg/day.

### CASE XII

A 20-year-old female, with a family history of BD and obsessive-compulsive disorder in two of the first-degree relatives manifested in 2017 with one episode of depression, which was partially treated with suboptimal dosages and inadequate duration with some antidepressants. Her symptoms resolved in 2018. In June 2021, she had mania without psychotic symptoms, which was treated with olanzapine 10 mg and divalproex sodium 1 gm/day. In January 2022, during the monthly follow-up, she reported bilateral digital tremors and hairfall. Evaluation revealed coarse digital tremors and loss of density as well as thickness of hair follicles. She reported poor self-image and self-esteem due to these adverse effects. Dermatological consultation was taken and an advice for change of medication was given. In order to limit the adverse effects of divalproex sodium, mood stabilizer prophylaxis was switched to quetiapine, uptitrated to 300 mg/day. The patient tolerated the cross-titration of medication without signs of relapse. Till date, he is in remission on maintenance quetiapine monotherapy 300 mg/day.

### CASE XIII

A 23-year-old male, with no family history of psychiatric illness, manifested in July 2020 with one episode of mania, which was treated with lithium 400 mg/day. He had a relapse with mixed episodes in July 2021 due to noncompliance with medication. He achieved complete remission with lithium 400 mg/day and a short course of olanzapine 5 mg/day. During monthly follow-up, in August 2022, he developed psoriasis. To limit the dermatological side effects and further progression of psoriasis, lithium was switched to quetiapine and uptitrated to 300 mg/day. The patient tolerated the cross-titration of medication well. Till date, he is in remission on maintenance quetiapine monotherapy 300 mg/day.

### CASE XIV

A 23-year-old male, with no history of psychotic illness in his brother, manifested in July 2022 with severe depressive episode necessitating hospitalization. He was started on sertraline 50 mg/day uptitrated to 200 mg/day in the next 2 weeks. He developed treatment-emergent affective switch. The symptoms progressed to mixed episodes despite discontinuation of sertraline. He was diagnosed as a case of BD, current episode mixed (ICD-10). He was started on divalproex sodium 1500 mg/day and risperidone 4 mg/day but had partial response despite 3 weeks of treatment. In view of poor response, his medications were cross-tapered to quetiapine 600 mg/day over the next 2 weeks. The patient tolerated the cross-titration of medication well and achieved complete remission in the next 4 weeks (by early September 2022). Till date, he is in remission on maintenance Quetiapine monotherapy 300 mg/day.

## DISCUSSION

The CANMAT guidelines 2018 recommend Quetiapine monotherapy as level I evidence<sup>25</sup> and NICE Guidelines 2014 (updated in 2019) recommend fluoxetine + olanzapine or quetiapine monotherapy.<sup>30</sup> The clinical practice of psychiatry in India to a large extent has not

**Table 1:** Summary of BD cases reported in this case series

Case number	Gender	Age (years)	Episode	Phase of illness	Rating scale (YMRS/HAM-D)		Quetiapine dose (mg)
					Baseline	Follow-up	
1	Male	70	Depression	Acute	43 (HAM-D)	13 (HAM-D)	300
2	Male	54	Mania	Acute	31 (YMRS)	04 (YMRS)	600
3	Male	27	Mania	Maintenance	–	–	600
4	Male	31	Depression	Acute	44 (HAM-D)	11 (HAM-D)	300
5	Female	44	Depression	Maintenance	–	–	600
6	Male	24	Mania	Maintenance	–	–	400
7	Male	35	Depression	Acute	36 (HAM-D)	10 (HAM-D)	300
8	Male	46	Depression	Maintenance	–	–	600
9	Male	35	Mania	Acute	34 (YMRS)	2 (YMRS)	300
10	Male	53	Depression	Acute	22 (HAM-D)	04 (HAM-D)	600
11	Male	54	Mania	Maintenance	–	–	300
12	Female	20	Mania	Maintenance	–	–	300
13	Male	23	Mixed	Maintenance	–	–	300
14	Male	23	Mixed	Acute	–	–	300

welcomed quetiapine as a frontline mood stabilizer due to lack of evidence regarding its efficacy beyond an antipsychotic and effectiveness in long-term stabilization. The aim of this case series was to assess the effectiveness of quetiapine for BD cases in the Indian population, in any phase and episode of illness.

The patients were industrial workers from various parts of India, adults of both genders, either in their first episode or relapse of illness. Various patient characteristics are summarized in Table 1. They either self-reported or were brought by their family members for treatment in General Hospital psychiatric units of Tertiary care center in Pune (Maharashtra) and Tezpur (Assam). Informed consent regarding the institution of medication or change of medication was taken from them or their relatives after capacity assessment. They were in various phases of treatment and were administered, switched, or cross-tapered to 300 mg/day to 600 mg/day of quetiapine depending upon the response. All patients were screened for comorbidities like endocrine, metabolic, and cardiac disorders that could have affected the course of illness and nonresponse. Prescriptions were checked for concomitant use of other drugs that could have influenced the serum levels of quetiapine and could have increased the false-positive results. The authors themselves imparted all patients, psychoeducation about the course and prognosis of illness, need for adherence with medication, role of social rhythms and biorhythms, effects of substance abuse, possible adverse effects of quetiapine, warning signs of relapse, and adverse effects. They were followed up on an outpatient basis till September 2022 for course and outcome of illness amid strict treatment adherence. In case of treatment nonresponse or partial response, the upgradation of mood stabilizers (second-line treatment) was planned as per CANMAT 2018 guidelines; however, none of the patients required the second-line treatment.

Two patients in manic episode, four patients in depressive episode, and one patient in mixed episode attained complete remission with quetiapine monotherapy. Medications of six patients were successfully switched from conventional mood stabilizers to quetiapine monotherapy without any signs of relapse. One patient was already maintaining remission on combination of quetiapine, and valproate was continued on the same regimen due to patient

preference. All patients, whether in acute phase or maintenance phase, were noted to be in remission on maintenance dosages of 300 mg/day. To conclude, all 14 patients of this case series responded to quetiapine as a primary mood stabilizer and none of the patients required the addition or change of quetiapine. Though the response to quetiapine (300–600 mg/day) came in around 2 weeks but all patients attained complete remission within 4 weeks. They continued to be in remission on maintenance dosages of 300 mg/day.

The results from this case series point toward a slow but definite response of quetiapine in any phase and episode of BD across adults of all ages. Though quetiapine has assumed a leading role in European and North American clinical practice guidelines for BD, it is yet to gather trust among psychiatrists in India as evident by recent studies.<sup>27,28</sup> Considering the scope and limitations of this study being a case series, large-scale randomized control trials with head-to-head comparison with conventional mood stabilizers and prospective studies focusing on long-term stabilization effects of quetiapine will be required to garner further understanding of quetiapine.

## CONCLUSION

The use of quetiapine as a primary mood stabilizer in acute phase and long-term stabilization appears promising in both manic and depressive episodes. The patients were observed for around 18 months, and it was found that the dosages of 300 mg per day acted as an effective prophylaxis during the maintenance phase. However, with around 2 weeks' time to achieve response and around 4 weeks to achieve complete remission, quetiapine is surely at disadvantage (in comparison with lithium or valproate). This seems to be a major limitation for monotherapy in acute-phase management.

Thus, we recommend that quetiapine monotherapy in the maintenance phase of manic or depressive episodes of BD and only as an adjunctive treatment in acute-phase management. Further prospective and interventional study designs will be required to validate the role of quetiapine monotherapy as a primary mood stabilizer as proposed by clinical practice guidelines in vogue.

## Clinical Significance

Quetiapine has been long projected as a new addition to the armamentarium of mood stabilizers, however, Indian psychiatrists are still skeptical about its use as monotherapy. Clinical practice guidelines propose the use of quetiapine as a primary mood stabilizer, however, weak evidence, clinical experience, and personal preference have checked its expansion in the territory of prophylaxis. This is an attempt to address this gap in the literature and further understand the real-world effectiveness of quetiapine monotherapy in the Indian subcontinent.

## DECLARATION OF PATIENT CONSENT

The authors certify that all appropriate patient consent forms have been obtained. The patient has given his consent for this clinical information to be reported to the journal. The patient understands that his name will not be published and due efforts will be made to conceal his identity.

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