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# Wandering Behaviour in Patients with Bipolar Affective Disorder: A Case Series

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## ABSTRACT

Wandering behaviour is walking slowly around or to a place, often without any particular sense of purpose or direction. It is present in many psychiatric disorders. Identifying the comorbid condition in these disorders is of highest importance. This article describes about a series of cases of patients with bipolar disorder with wandering.

***Keywords:*** Wandering behaviour, Bipolar affective disorder, Mania.

## INTRODUCTION

Wandering behaviour (WB) is defined as an ambulation that occurs independent of usual environmental cues and that may appear to the casual observer to be random or uncontrolled behaviour. [(1)] WB is seen in patients with various psychiatric disorders and it mounts to the caregiver burden. These patients are vulnerable for physical, emotional and sexual abuse. [(2)] Research on WB is predominantly done on patients with dementia and cognitive impairment. There is a paucity of literature about WB in other psychiatric disorders. Here we present a compilation of cases where wandering is seen in patients with Bipolar Affective Disorder (BPAD).

## CASE ILLUSTRATION

### CASE 1:

60years old, married male, studied up to fifth standard, handyman by occupation, from a nuclear family presented to the Psychiatry OPD with history of irritability, decreased sleep, increased activity, over religiosity, increased talk, suspiciousness, abusive and assaultive behaviour since 4months.Patient was a known case of BPAD since the age of 25 years with multiple manic episodes in the past. Two weeks prior to patient's admission, he was noticed to be waking up at around 3am and leaving the house without informing his family. Patient used to wander in the streets uprooting plants and planting them in his house, after which he would walk towards a temple, which was about 5km from his residence, to offer his special prayers. On the day, prior to the admission, patient had visited his relatives and created havoc owing to his suspiciousness and left their place at 2am.Patient's family members did not bother about the same as it was his routine behaviour. However, when patient did not return till 10am, they started searching for him frantically to finally find him at the same temple, which was 22km away.

During the past episodes, patient had similar symptoms and would cycle up to 50kms to visit temples.

General physical examination (GPE) and systemic examination (SE) were within normal limits.

On Mental Status examination (MSE): he was conscious, distractible with increased psychomotor activity, irritable affect, increased talk in volume and tone, but decreased on reaction time, with delusion of persecution and elevated self-esteem and no insight.

Baseline YMRS score was 34/60.His routine investigations (including hemogram, liver, renal and thyroid functions, serology,

neuroimaging, EEG) were within normal limits. A diagnosis of Bipolar affective disorder -current episode manic with psychotic symptoms was made. He was treated on divalproex sodium and olanzapine.

**CASE 2:**

A 35year old male, married, high school educated, mason by occupation, from an extended family and rural location of residence, was brought to the psychiatric emergency ward, with history of irrelevant talk, inability to recognise family members, increased activity and disturbed sleep noticed since one day.

Patient was a known case of BPAD since the age of 18, with 2 episodes in the past. Patient had history of increased talk and activity, boasting about self and abusive and assaultive behaviour since two months. He was admitted at a mental health facility and prescribed divalproex sodium 1500mg, lithium 800mg,olanzapine 30mg, quetiapine 200mg, risperidone 4mg and lorazepam 2mg.Patient was discharged prematurely against medical advice, as they opted for magico-religious treatment. Patient stopped the medications one week after discharge and was found to have decreased sleep and confusion at night. On day 3 after stopping medication, patient left home at 6pm, after which he was missing for a period of ten days. Father was informed by an acquaintance that he found the patient walking at 7.30 pm on the same day 4km away from their house but patient was unable to recognise him. All attempts to contact the patient failed and they had to resort to filing a police complaint. Ten days later, patient's family members received a call from a hotel, where the patient was found. He was unkempt with soiled clothes and was unable to recognise family members and had a staring look. He was unable to explain about his travel and how he covered such a long distance. He would keep walking around the house .The patient's family members consulted their previous psychiatrist in view of above mentioned complaints and the same medications were restarted. However, since there was no improvement, patient visited our tertiary care centre.

MSE on the day of admission: Patient had a dishevelled appearance, was drowsy, had fluctuating consciousness, was not oriented to time, place or person, recent memory was impaired. He was noticed to have slurred speech. On GPE his vitals were stable and SE was within normal limits. He had a superficial cut on the forehead measuring 1x2 cm. Differential diagnoses of delirium secondary to seizures, hyper-ammonemia and lithium toxicity was considered. However, all routine investigations (including CT head, S. ammonia and S. lithium, S. electrolytes) were within normal limits. Patient improved after tapering and stoppage of divalproate.

**CASE 3:**

35-year-old businessman, married with secondary level of education presented with complaints of walking long distance and not able to remember the event since one day. When the patient was examined he was well kempt, was appearing perplexed. His psychomotor activity was reduced. He had a reduced output of speech but relevant talk. There was no perceptual or content abnormality. The patient was experiencing intense financial stress since a few weeks and was unable to clear his debts. Patient had last contacted the family member around 6 pm (when he left his shop), after which they were unable to contact him. Patient says he is not aware of the incident. They could reach him only at 11 pm and he informed them about the location (close to a forest).When family members met the patient his appearance was normal and he had travelled about 8km. He had a large branch of a tree in his hand and soil in his hands, but was not able to explain regarding the same. No external injuries were noticed. A possible seizure or dissociative disorder was considered. EEG done was normal.

On probing further, it was revealed that patient had a history of decreased sleep, increased activity and planning, increased libido and over familiarity since a month.

He had a history of a manic episode and depressive episode in the past. He also had a history suggestive of dissociative convulsion prior to the onset of the depressive episode. Patient was started on divalproex sodium and olanzapine. Patient improved during the ward stay.

**CASE 4:**

60year old widow, with secondary level of education, living alone, rural location of residence, homemaker by occupation, presented to the OPD with complaints of decreased sleep, increased talk and activity, irritability and wandering behaviour since one and half months. Patient was a known case of BPAD since 35years but had not reached premorbid levels of functioning since her last episode (4years back). During her last episode she developed lithium toxicity and underwent haemodialysis for the same. Since then patient was noticed to have memory disturbance in the form of misplacing objects and searching for it, had difficulty in preparing food and remembering names of acquaintances. Since the past one and half months, neighbours noticed patient wandering in the town and would appear confused. She had to be escorted home, as she was unable to find her way home. They notified it to her daughter, who took the patient to her house. However, patient was noticed to be confused especially at night with regard to rooms of her house. She used to disrobe inappropriately. Wandering continued and hence the patient was locked at her house when there were no family members at home. Her irritability and talk increased and hence she was taken to a psychiatrist who started her on divalproate and quetiapine. Since there was no improvement patient consulted our tertiary care centre.

She was also a known case of diabetes mellitus, hypertension and hypothyroidism and on regular medication. There was family history of depressive disorder in mother. On mental status examination patient was conscious, easily distractible, had increased psychomotor activity and talk with irritable affect, delusion of persecution and second person auditory hallucination. Cognitive functions could not be assessed due to interfering psychopathology. Patient was investigated and comorbid medical conditions were treated. The dosage of divalproate and quetiapine was titrated and patient's mood symptoms improved significantly. Patient was noticed to have memory deficits during the ward stay and her MMSE was noticed to be 18/30. We evaluated for other causes of memory disturbances. Her vision and hearing was normal. Neuroimaging showed diffuse cerebral atrophy. Subsequently, patient was noticed to have difficulty in performing her activities of daily living. Her MMSE declined to 12/30.Neurology opinion was sought and a diagnosis of Dementia-mixed type with behavioural disturbances was made. Patient was started on memantine and donepezil.

## DISCUSSION

WB in psychiatric disorder is commonly noted and it increases the burden for the caregiver and increased probability of remaining institutionalised. WB is mostly described and reviewed as a behavioural symptom in patients with dementia. WB or purposeful travel usually occurs in the manic phase of BPAD. [(3)] Purposeful travel could be a part of increased psychomotor activity or over religiosity in mania as described in the first case scenario. Patients with mania might be preoccupied with elevated self-esteem, grandiosity or persecutory delusion making them prone to WB. [(3)] But every patient with bipolar disorder need not have a goal directed act of travelling. There could be comorbid psychiatric or medical disorders which can mimic manic wandering in patients with bipolar affective disorder as described in the other three cases. [(3)]

The second patient described is a known case of BPAD on divalproex sodium, lithium and risperidone. Patient was in a altered state of consciousness during his wandering episode. A differential diagnosis

of delirium due to an independent seizure, seizure secondary to abrupt withdrawal of antiepileptic medication, hyperammonemia, cognitive impairment due to lithium toxicity can be considered in this patient. Differentiating each disorder is of utmost importance. Even though patient was on therapeutic dose of divalproate, the drug-drug interactions caused by multiple medications can predispose the patient for hyperammonemia without any liver dysfunction further leading to abnormal behaviour. [(4)] Detecting the serum ammonia level could be only way to ascertain the diagnosis but normal ammonia level does not rule out the possibility of abnormal behaviour due to valproic acid. Discontinuing valproic acid in such patients may improve the condition as noticed in our patient. [(5)] Yet another important consideration is of seizure either independent or due sudden withdrawal of antiepileptic medication. EEG and neuroimaging in such patients can be of diagnostic value. The diagnosis cannot be relied solely on EEG as patient did not present to us immediately after the episode. However, symptoms noticed when the patient was found are suggestive of complex partial seizures. [(3)] Cognitive impairment and delirium can also be due lithium toxicity. But absence of clinical signs of tremors, hyperreflexia and laboratory investigation of normal serum lithium level rules out the possibility. [(6)]

Stress is an important factor in patients with mood disorder as it can precipitate an episode. The third case describes about stress in patient with bipolar affective disorder. Stress has not only precipitated manic symptoms but also a dissociative episode in the patient. Here patient had reported of significant financial stressor after which he was noticed to be wandering. Well preserved appearance and circumscribed amnesia for the episode favours the possibility of dissociative episode rather than manic purposeful travel. [(3)] In Indian Scenario there are few case reports where dissociative disorder is comorbid with manic and hypomanic episodes. The socio-cultural aspects also play an important role in these patients. [(7)]

Dementia is one of the most common disorder in which wandering has been described as in the fourth patient. Patients with mood disorder are at increased risk of developing cognitive impairment due to multiple episodes. Anticholinergic medication as well as medications like valproate and lithium could further add to the cognitive impairment. [(3)] However, there is research evidence for efficacy of lithium as a cognitive enhancer. [(8)] Comorbid cognitive impairment can sometimes be mistaken for worsening of the manic symptoms. Hence continued assessment even after resolution of mood symptoms is required.

## CONCLUSION

The above compilation of cases describes the different presentations of WB in patients with bipolar affective disorder. Clinicians need to be aware of the atypical presentation and explore possibility of comorbid conditions. Clinicians should also be cognizant with the possibility of WB/ altered sensorium in patients with therapeutic doses of valproate in the absence of hyperammonemia. Hence it is of utmost importance to have a broad perspective while evaluating a patient with mood disorder with wandering behaviour.

**Declaration of Patient Consent:**

The authors certify that they have obtained all required patient consent forms. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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