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Case report on Bipolar Affective Disorder with Manic Episodes and Chronic Myeloid Leukemia

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Abstract:- Bipolar affective disorder (bipolar disorder) is a complex illness characterized by periods of severe mood disruption, including manic episodes. Treatment typically involves a combination of medications tailored to the individual's symptoms and needs. Here, we present the case report of a 45-year-old male farmer with bipolar affective disorder and comorbidities, including diabetes mellitus and chronic myeloid leukemia. The patient exhibited symptoms of mania, including irritability, decreased sleep, over talkativeness, delusions of grandiosity and perception, and psychomotor agitation. Treatment with Risperidone, Sodium Valproate, Haloperidol, Promethazine, and Lorazepam resulted in a 25% improvement in symptoms. Despite challenges posed by comorbid illness and past experiences, the patient showed improvement with adherence to medication. This case underscores the importance of tailored treatment approaches in managing bipolar affective disorder and highlights the need for further research to bridge the gap between evidence-based treatment and clinical practice.

Keywords: *Bipolar Disorder, Chronic Myeloid Leukemia, Delusion Of Grandiosity, Psychomotor Agitation.*

I. INTRODUCTION

Bipolar affective disease, also referred to as bipolar disorder, is a multifactorial illness that includes immunological and physiological abnormalities, neuropsychological deficiencies, and periods of severe mood disruption. [1] Mania lasts for at least a week, during which time the afflicted person may exhibit abnormal behaviour that significantly impairs their ability to work normally. A change in mood (ecstasy and exhilaration), increased talkativeness, fast speech, sleep disturbance, racing thoughts, an increase in goal-directed activity, increased psychomotor activity, and impaired insight are the hallmarks of manic episodes. [2]

During the period of mood disturbance, at least three of the following symptoms have persisted (four if the mood is only irritable) and have been persistent to a significant degree.

- Inflated self-esteem or grandiosity.
- Decreased need for sleep.
- More talkative than usual, or pressure to keep talking.
- Flight of ideas or subjective experience that thoughts are racing.
- Distractability, i.e. attention too easily drawn to unimportant or irrelevant external stimuli.
- Increase in goal-directed activity or psychomotor agitation. [3]

Atypical antipsychotics (such as quetiapine, olanzapine, risperidone, ziprasidone, aripiprazole, clozapine), benzodiazepines (such as lorazepam, clonazepam), standard antipsychotics (such as haloperidol, chlorpromazine), and lithium are the most used drugs in the acute setting. Initial treatment decisions are impacted by the patient's past and present medication history, the urgency of resolving agitation and aggression, the features of the manic episode, the occurrence of rapid cycling, and the patient's acceptance of specific therapies along with administration processes. [4] Here, we present the case report of a male farmer suffering from bipolar affective disorder with mania.

II. CASE REPORT

A 45-year-old male farmer came with the chief complaints of headache, anger spells, irritability, decreased sleep for 20 days, and over talkativeness for a month. He also presented with slurred speech, salivation, and numbness of the fingers and was admitted to the male psychiatry ward in Gandhi Hospital, Hyderabad. The patient had known complaints of diabetes mellitus and chronic myeloid leukemia and was on regular medication.

The patient is a farmer from a rural background and has been educated up to class 7. He was apparently well maintained with all his biological functions until the illness of his father-in-law and the departure of his family to take care of him. He went to his native village, where he was

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forced to consume alcohol and given fake promises by his friends that they'd make his son's life better, for which they demanded money. He lied to his wife, saying it's for his diabetic medication to obtain it. He had also mortgaged his son's chain to provide money. His sleep worsened after coming back to their home, i.e., only 1-2 hours per day, as observed by his wife. He was under the delusion of perception, thinking he had a lot of money and that he had to groom himself well for his daily activities. He used to speak excessively, sometimes irrelevant to the situation. He had an episode of anger when he was once called by his wife for dinner and started to hit her and her father. His son hit him back, leading to an injury to his left eye. After which, he left for his native place, telling them he had gone to meet his friend regarding money, and came back. He was taken to the MNJ hospital for his regular checkup for chronic myeloid leukemia, but he got angry and abused the management, saying he could buy the entire hospital. After this, he was referred to Gandhi Hospital and was bought by his wife and son.

Upon patient history collection, it was known that the patient was on imatinib 400mg for 6 months for chronic myeloid leukemia and was on regular medication for diabetes mellitus for 7 years.

He had similar complaints in the past (7 years ago) when his brother-in-law, who was a chronic alcoholic, passed away. He used to go to nearby stores to buy groceries in bulk, pick up an argument, and be abusive when asked to pay. He started to sleep only 2-3 hours per day and started telling his family members that he had a lot of money. He also started to get excessively groomed at his farm, which was unusual. So, his family members took him to a psychiatrist at Mediciti Hospital, where they prescribed some medications, and his symptoms, like decreased sleep and delusion of perception, resolved within 10 days, after which everything was normal again.

On examination, ecchymosis was noted in the left eye, fasting blood sugar was 116.5, and GRBS was 128 mg/dl.

After a mental state examination, the patient was found to be kempt, although rapport was not established.

Psychomotor agitation increased.
Speech: relevant and coherent
Thought: delusion of grandiosity, increased self-esteem, delusion of infidelity, and delusion of perception.
Upon assessment with the Young Mania Rating Scale, the patient received a score of 22, indicating mild mania.

Based on the patient's complaints and mental examination, the patient was diagnosed with F 31.2 bipolar affective disorder with manic episodes and leukemia, and the patient was administered T. Risperidone 4mg OD, T Sodium Valproate 500mg BD, Inj Haloperidol 1 amp 5mg, Inj Promethazine 1 amp 50mg IM, and Inj Lorazepam ½ amp IM for a week.

The patient had a 25% improvement in his symptoms and was discharged.

III. DISCUSSION

Bipolar disorder is a recurrent, sometimes chronic condition characterized by manic, hypomanic, or depressive episodes. Depression is the most common manifestation, and over one-half of primary care patients with depression also have bipolar illness. Bipolar depression symptoms frequently differ from unipolar depression symptoms. The bipolar II subtype typically manifests at an age slightly older than the late teens, when bipolar disorder first manifests. Compared to other psychiatric conditions, bipolar disorder is currently 6·9% more common in India. Although milder types of bipolar disease are sometimes overlooked, the annual frequency of bipolar illness is typically thought to be less than 1%. [5] The diagnostic guidelines for mania are: a) The present episode has to meet the requirements for mania without psychotic symptoms. and b) There must have been at least one prior affective episode in the past, whether it was mixed, hypomanic, manic, or depressed.

Mania was diagnosed based on the following criteria: the episode had to be severe enough to significantly interfere with daily activities and social contacts, and it had to endure at least one week. When the mood shifts, patients should experience an increase in energy and some of the symptoms indicated below.

- Decreased need for sleep
- Grandiosity
- Excessive optimism
- Particular pressure on speech

The patient has had such emotional episodes in the past and has recently had greater energy, decreased sleepiness, and excessive optimism. Given that this fits the aforementioned requirements, we can provisionally classify the patient's present.

The most used tool for assessing manic symptoms in clinicians is the Young manic Rating Scale (YMRS). The eleven items on the scale are based on the patient's subjective report of their clinical condition over last 48 hours. These items include disruptive - aggressive behaviour, appearance, elevated mood, increased motor activity, energy, sexual interest, sleep, irritability, speech, and language for thought disorders. Four items—disturbing-aggressive behaviour, speech, mental content, and irritability—are rated on a 0–8 scale, while the remaining seven things are rated on a 0–4 scale. The YMRS has a score range of 0 to 60. The average score on the YMRS were 13 for minimal severity, 20 for mild, 26 for moderate and 38 for severe.[7] The patient received a score of 22 on the Young Mania Rating Scale, which is used to diagnose mild mania (BD). The ICD-10 criteria are used to determine what constitutes manic and depressive episodes. Bipolar affective disorder (BD) was categorized under disorders of the affect (mood) F30–F39, with F31 indicated for BD. F 31.2, which denotes current episode mania with psychotic symptoms, was the patient's diagnoses.[8] The patient was recently diagnosed with chronic myeloid leukemia after presenting with similar concerns in the past. Studies indicate

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that patients with cancer may have pre-existing psychotic disorders that are made severe because receiving a cancer diagnosis can either create or exacerbate anxiety and depression in people who already have mental health issues. In addition, several chemo regimens have been connected to agitation and subsequent mania in patients who had no prior mental health history. According to Bellman V et al.'s report from 2021, it was specifically suggested that a patient partially relapsed following the imatinib cycle, which also happened to correspond with the development of psychomotor agitation and multiple episodes of behavioural dysregulation. Calvin CV et al.'s study provides evidence that the prevalence of Type 2 diabetes mellitus (T2DM) is three times greater in bipolar disorder (BD) patients than in the general population. Bipolar patients with glucose abnormalities should be tested for and treated accordingly. [10] In support of the study, the example implies that the onset of diabetes mellitus and manic symptoms occurred almost at the same time. A combination of anti-psychotic (risperidone), anti-anxiety (lorazepam), and mood stabilizer (valproic acid) was used in the treatment plan, in addition to additional drugs to reduce agitation and anxiety. The patient's symptoms have decreased, thus neither cognitive behavioural treatment nor psychoeducation were necessary. [11] The majority of patients require a combination of pharmacological therapies and psychosocial interventions to achieve reasonable results in terms of clinical and functional outcomes. Even though there are currently many medications available to treat mania, there is still a significant gap between evidence-based treatment and clinical practice.[12]

IV. CONCLUSION

The study discusses a case of bipolar affective disorder, current episode maniac with psychotic symptoms. The patient had similar complaints in the past and the diagnosis of chronic myeloid leukemia and alcohol consumption may have led to a relapse. Despite of comorbid illness there was slight improvement noted in the patients physical and psychological health because of adherence to all the medications given.

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