

## CASE STUDY

## CO-MORBIDITY IN BIPOLAR AFFECTIVE DISORDER: A CASE REPORT

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## ABSTRACT

Bipolar affective disorder currently in mania has been well documented. There are few studies regarding co-morbidity in Bipolar affective disorder currently in mania. Here our aim is to report such a case who presented with bipolar affective disorder currently in mania with psychotic features, co-morbidity of obsessive compulsive disorder, Alcoholic dependence syndrome and Nicotine dependence syndrome. Treatment approaches in co morbid condition.

**Key words:** Bipolar affective disorder, Mania, Co-morbidity, Alcohol dependence syndrome (ADS), Nicotine dependence syndrome (NDS)

## INTRODUCTION

Bipolar affective disorder (BPAD) is defined as recurrent manic and depressive mood episodes. It is one of the most common mental disorder<sup>1</sup>. It is a complex medical illness of the brain. This illness expressed as an irregular pattern of changes in mood, energy and thinking. It is also known as manic depression disorder. It is a common psychiatric disorder which includes periods of extremely elevated mood<sup>2</sup>. The concept of bipolar disorder grew out of Emil Kraepelin's classification of manic depressive insanity, which was postulated around the end of the 19<sup>th</sup> century, however manic state can be found in the writing's of Hippocrates and as far back as Egyptians. In 1957 Leonard coined the term 'bipolar' for those patients with depression who also experienced mania. In 1980 the name Bipolar disorder was adopted to replace the older term manic depression, which was tightly associated with psychosis<sup>3</sup>.

National collaborating centre for mental health reported that first-degree relatives of an individual with bipolar disorder face a life time risk of developing illness that is five to ten times greater than the general population. Stressful life events or alcohol abuse or nicotine abuse or drug abuse can make bipolar disorder more difficult to treat. This disorder is partially caused by imbalance of brain chemicals called neurotransmitters such as Nor-adrenaline (Nor-epinephrine), serotonin and dopamine<sup>4</sup>.

Symptoms of mania include physical restlessness, increased talkativeness, racing thoughts, inflated self-esteem extending to delusions of grandeur, decreased sleep. These symptoms may lead to changes in both social and occupational function because of excessive behavior patterns<sup>5</sup>. Comorbidity is known to occur among various psychiatric disorders, however coexistence of obsessive compulsive disorder with mania is rare to see<sup>6</sup>.

Bipolar patients have an unusually high incidence of Substance Use Disorders (SUD). Cigarette smoking (nicotine addiction) is also considered a substance use disorder. This nicotine abuse can reduce plasma levels of many medications used to manage bipolar disorder, making the disorder even more difficult for smokers to control<sup>7</sup>. Obsessions are recurrent, intensive, irrational persistent thoughts, images or impulses, when tried to control causes stress so the person tries to control them with some other thought or action. Compulsions are the behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation. However these behaviors or mental acts are

not connected in a realistic way with what they are designed to neutralize<sup>8</sup>.

## CASE REPORT

A 45 year old man was admitted to Basaveshwara medical college hospital and research center, Chitradurga with the complaints of increased aggression, decreased sleep, increased talk and increased anger since 1 week. This patient is a known case of Bipolar affective disorder which was previously diagnosed and treated in NIMHANS 2008 & Chitradurga Government Hospital for the same problem. Regarding his family history, his father and grandfather had same type of disorder when he was 10 years of age. He is press reporter, before admitting to NIMHANS hospital he was abusing alprazolam at the dose of 1-2mg/day since 5-6years (2002-2008) for decrease sleep. He gives up this drug and following the treatment in NIHMANS Tab. Olanzapine 30mg/day, Tab Chlorpromazine 600mg/day, Tab.Trihydroxyphenyl 12 mg/day, Tab.lithium 300mg twice daily and in social history he used alcohol and smoked cigarette.

## INVESTIGATIONS DURING HOSPITALIZATION

Blood parameters like total count, differential count, thyroid profile, liver function test, and renal profile were normal level.

## DISCUSSION

Bipolar disorder is one of the most common disorder of the severe chronic psychiatric disorders<sup>9</sup>. Here in the past history patient was admitted in NIHMANS Hospital Bangalore, INDIA in 2008 for same symptoms and diagnosed as Bipolar affective disorder. This disorder is manic-depressive disorder which causes radical emotional changes from manic high to depressive lows. It is caused by various factors like genetic factors, biological factors and environmental factors. In this patient one of the causes for this bipolar disorder is hereditary because in his family history his father had suffered with same disorder when he was at the age of 10years old and his grandfather also had this disorder. While observing some previous studies genetics play a major role in Bipolar disorder and it runs in the families, and there is also evidence that environment and lifestyle issues have an effect on the Bipolar disorder's severity<sup>10</sup>. Alcohol and nicotine abuse worsen the condition of Bipolar disorder and make very difficult to treat this disorder<sup>11</sup>. This patient has Alcohol dependence

syndrome, Nicotine dependence syndrome. So in this patient bipolar disorder currently mania is genetically developed along with this he may be affected by alcohol, nicotine and alprazolam severely, that's why the condition of patient in manic state is high and even though the treatment is good but his condition is not controlled. Obsessive-compulsive disorder, Alcohol dependence syndrome, Nicotine dependence syndrome and substance use disorders are poorly understood because patients with comorbid disorders are generally omitted from the clinical trials<sup>12</sup>. Treatment for the bipolar disorder is vary from the patient to patient based on the individual clinical presentation, severity, and frequency of episodes. But primarily psychotherapy which is the first option of nonpharmacological therapy. Based on randomized trials pharmacological treatment are Mood stabilizers(Lithium ,Valproate), Anti-psychotics and Anti-convulsants are used. Most probably monotherapy is used but based on the severity of the illness and comorbidity, combinational pharmacotherapy is used like lithium plus antipsychotics

(Aripiprazole,Clozapine,Haloperidol,Olanzapine ,Respiridone,Quetiapine,Ziprasidone) but there is no head-to-head trails for comparison of antipsychotics in combination with lithium or valproate but choice is based on previous medication response , side effects , comorbid conditions, drug-drug interactions<sup>13</sup>. Lithium is more effective in patients with pure mania but it is less effective in patients with comorbidity of psychotic features and substance abuse. Another mood stabilizer valproate shows more effective in bipolar disorder with comorbidity of substance abuse and psychotic features when compared to lithium<sup>9</sup>. There is also evidence to suggest that these subtypes of bipolar disorder have shown different responses to medications (Prien et al. 1988) and there was a literature on the use of lithium, valproate, and naltrexone for the treatment of comorbid bipolar patients<sup>14,15</sup> Here in this patient has given treatment Injection Olanzapine 10mg BD which is anti-psychotic drug and injection vitamin B-complex TID which is used in supporting the manic-depression treatment while patient was on hospitalization, and on discharging Tab. Lithium carbonate extended release 400mg twice a day for one week and Tab.Olanzapine 10 mg is prescribed. From the studies of

Geler and colleagues(1998)in a 6-week trial of lithium versus placebo in 25 adolescents with bipolar disorder and secondary substance dependence, they found a significant reduction in positive urine tests for substances of abuse and significant improvement in psychiatric symptoms. This suggests that lithium may be a good choice for adolescent substance abusers<sup>14,16</sup>. In some controlled studies of acute mania, mixed and depressed phases combinational therapy of lithium or valproate with anti-psychotics shows greater efficacy than alone. Here olanzapine shows more efficacy in the treatment of mania with psychotic features. From the literature in a double-blind trails compared with the lithium, valproate, haloperidol and placebo olanzapine shows greater efficacy in the treatment of acute mania, depression, with or without psychotic features<sup>17,18</sup>. Olanzapine is only the anti-psychotic drug that has FDA approval for bipolar maintenance therapy. Alcohol and nicotine alters the plasma levels of drug concentration and interfere with the reduction of therapeutic response of lithium and other drugs, so the patients should be far away from the usage of these (Alcohol and nicotine) for good therapeutic approach.

## CONCLUSION

According to our study we conclude that Bipolar affective disorder is affected by genetic factors, transmissible through family's of first relatives and along with this alcohol dependence syndrome and nicotine dependence syndrome worsen the course of bipolar disorder and harder to treat. There has been little study of the appropriate treatment for this co-morbidity. Several studies suggest that mood stabilizers particularly valproate (better than lithium)has been play a major role in treating alcoholic and nicotinic bipolar patients, but head-to-head comparison of lithium and valproate has not been carried out. Prescribing of lithium is based on the patient good response and his compliance to the drug in his previous history. Olanzapine is good antipsychotic drug which has FDA approval shows more effective in maniac patient with psychotic features. So we have to show the special attention on co-morbidities in bipolar affective disorder and follow the unbiased practice guidelines for the treatment.

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