

# Post Covid Bipolar Affective Disorder: A Case Report

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## ABSTRACT

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. It can cause illness ranging from mild common cold to more severe diseases such as Severe Acute respiratory syndrome (SARS), Middle east respiratory Syndrome (MERS) and even death due to its complications. Besides the indirect impact of the pandemic, a diagnosis of COVID-19 is itself associated with a greater risk of subsequent mental illness. Bipolar disorder, formerly known as manic-depressive illness, is a brain and behavior disorder characterized by severe shifts in a person's mood and energy, making it difficult for the person to function. Bipolar disorder causes repeated mood swings, or episodes, that can make someone feel very high (mania) or very low (depressive). The cyclic episodes are punctuated by normal moods. Here, we present a case of Post Covid patient who initially developed maniac symptoms after being in self quarantine for Covid illness followed by depressive episodes after few months and later diagnosed with a Bipolar Affective Disorder (BPAD). He was then treated with Atypical Anti Psychotics and Anti Convulsants. A person infected with Covid 19 treatment should not only focus on treating the virus and minimizing the spread of the disease by self-quarantine of the patient rather should also include and focus on the aspects of mental health and the impact that follows after a Viral infection. Including the mental health aspect of an ill person in quarantine can prevent a lot of mental illness post infection as well as reduce the number of death reported in Post Covid period due to suicide.

**KEYWORDS:** Bipolar affective Disorder, Covid -19, Mental illness, Quarantine

## INTRODUCTION

Coronaviruses are a group of related RNA viruses that cause diseases in mammals and birds. They are enveloped viruses with a positive-sense single-stranded RNA genome and a nucleocapsid of helical symmetry. In humans they cause respiratory tract infections that can range from mild to lethal. The new strain of coronavirus SARS-CoV-2 was first reported in Wuhan, China in December 2019. It has since spread to every country causing a health crisis and pandemic all over the world declaring it a Public

Health Emergency of International Concern. The first case of Covid 19 was detected in Nepal On Jan 13, 2020 when a 32-year-old man, a Nepalese student at Wuhan University of Technology, Wuhan, China, with no history of comorbidities, returned to Nepal.

Coronavirus 2 (SARS-CoV-2) can enter the brain, the immune response triggered by COVID-19 might have neural effects, and the hypercoagulable state of COVID-19 might impair brain structure and function via cerebrovascular effects. Psychologically, the need to self-isolate as a result of a diagnosis of COVID-19 might result in loss of status at work, loss of income, and loss of social support, providing the stressors which result in psychiatric disorder in some people. Mental illnesses have biological, psychological, and social factors and these dimensions' imbalances plays a major role in causing the effect in a person.

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Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. Also called major depressive disorder or clinical depression, it affects how you feel, think and behave and can lead to a variety of emotional and physical problems. It can also disturb sleep and appetite. Tiredness and poor concentration are common. Mania is a psychological condition that causes a person to experience unreasonable euphoria, very intense moods, hyperactivity, and delusions. Mania can be a dangerous condition for several reasons. People may not sleep or eat while in a manic episode. They may engage in risky behaviors and harm themselves.

People with mania have a greater risk of experiencing hallucinations and other perceptual disturbances. Bipolar disorder is a mental health condition marked by extreme shifts in mood. Episodes of mania, or an extremely elevated mood along with episodes of depression, or a low mood. The condition typically starts in late adolescence or early adulthood, although it can show up in children and in older adults. Here we report a case of Post Covid Bipolar disorder who was initially diagnosed as mania after the period of his quarantine post diagnosis of Covid 19. Later, he was diagnosed with BPAD when he developed depressive episodes in between periods of mania.

## CASE REPORT

A 17-year-old boy presented to Post Covid Clinic of Bir Hospital, Kathmandu Nepal with chief complain of Headache. He was referred to post Covid OPD by medicine department. Past medical history include Covid infection 1.5 year back complicated to pneumonia and hospital admission. He also gave a history of Mental illness under medication. On follow up with his reports he was found to be a diagnosed case of Bipolar Affective Disorder under medication (Anti-psychotic and Anti Convulsant) from past 6 months. Initially 1.5 years back during the pandemic of Covid 19 he developed symptoms like Dry cough, Chest pain, Fever and loss of taste and smell. He was then taken to a nearby Hospital where he was found to be Covid Positive and was strictly advised to self-quarantine himself with all the safety guidelines for Covid 19 patients. He stayed in quarantine for 11 days when he developed high fever and chest pain increased gradually. On rushing him to the hospital in a chaotic pandemic situation, a detailed history, physical examination was done with safety precautions and a Chest X ray, Blood tests were done. He was diagnosed with Pneumonia and admitted for 3 days. At that time his Oxygen saturation had dropped to 84% managed with Antibiotics, IV fluids and Oxygen therapy. He was discharged after 3 days and his Covid tests were still positive so was advised to stay in quarantine at home. During the period of quarantine, he was unable to go out and talk to his family members. He used to feel very lonely and had nobody to talk to and felt like he was living in a jail. All of his friends had also

parted away as he could not go out and play sports like usual, he could not go to school and have usual days and on top of that he was unwell and his breaths felt heavy. Many times he thought of ending his life and self-contemplating his life as his parents also had no job during Covid and everyone was fighting the battles of Covid. After the quarantine period of 22 days he started to develop unusual behavior like being very aggressive and also unusually happy at times with sudden rage and outburst. According to the mother initially they thought it was due to the growing age into adolescence and neglected the symptoms. Gradually he started to neglect his studies used to fight a lot, had disturbed sleep and didn't sleep well for days, started talking very loudly and would change his behavior within minutes from happy to an aggressive behavior. He started breaking items at home out of outburst and also threaten his parents about harming himself. He started to behave strange and avoided studying. After a period of unusual behavior for 2 months he was taken to Chaitanya Institute for mental health where he was diagnosed with mania. After that he was advised to stay in rehabilitation and stayed there under observation. He stayed in Rehabilitation center for 3 months where he was structured and supervised daily, pharmacological intervention, individual counseling, Behavioral modification therapy, Music therapy, Group and Individual based therapies, Relaxation therapies, Yoga and meditation therapy. Due to which he missed his final exams of class 10. After returning to home he was well for about 2 months then slowly his parents started noticing that he has become sad and depressed as he would not come out of his room, wouldn't communicate and talk much. He started becoming sad and crying over small things, being hopeless about life and not taking a keen interest in anything. He also started lamenting over studies and his missed year at school and how all his friends had stopped talking to him. At the follow up with his new symptoms later he was diagnosed with Bipolar Affective Disorder and treated under the same guidelines. He has been following up with his counselling and therapies is under anti-psychotic and anti-convulsant medication. Currently his mother was afraid that he had Covid reinfection due to his flu like symptoms and we could trace a case of Post Covid Disorder. The case is a psychiatric case but it is a manifestation of Covid and lack of mental health awareness and an indirect impact of the viral pandemic. The virus not only harms the physical health but also played a major role in people's life due to drastic changes, fear and devastating effect on thousands of people. Currently, he is maintaining himself ongoing psychosocial as well as pharmacological therapy. He is improving physically and mentally and his symptoms and behaviors are under control. He showed positive attitude towards the treatment. However, he requires supervision for his medication and advised to keep regular follow up with the psychiatrist. He is also regularly Consulted via National Teleconsultation Centre

## DISCUSSION

Bipolar Disorder formerly called Manic-Depressive illness or manic depression is a mental illness that causes unusual shifts in mood, energy, activity levels, concentration, ability to carry out day to day tasks. A number of factors contribute to bipolar disorder, including genetic, biochemical, psychodynamic, and environmental factors. There are three types of bipolar disorder. Bipolar disorder is characterized by periods of deep, prolonged, and profound depression that alternate with periods of an excessively elevated or irritable mood known as mania.

Manic episodes are characterized by at least 1 week of profound mood disturbance, characterized by elation, irritability. At least 3 of the following symptoms are required for manic illness:

- Grandiosity
- Diminished need for sleep
- Excessive talking or pressured speech
- Racing thoughts or flight of ideas
- Clear evidence of distractibility
- Increased level of goal-focused activity at home, at work, or sexually
- Excessive pleasurable activities, often with painful consequences

Major depressive episodes are characterized when the person experiences 5 or more of the following symptoms, with at least 1 of the symptoms being either a depressed mood or characterized by a loss of pleasure or interest for at least 2 weeks and the symptoms are:

- Depressed mood
- Markedly diminished pleasure or interest in nearly all activities
- Significant weight loss or increase in appetite
- Hypersomnia or insomnia
- Psychomotor retardation or agitation
- Loss of energy or fatigue
- Feelings of worthlessness or excessive guilt
- Decreased concentration ability or marked indecisiveness
- Patient has a plan or has attempted suicide

Bipolar disorder is diagnosed based on the patient's history and clinical course, laboratory studies may be necessary to rule out other potential causes of the patient's signs and symptoms as well as to have baseline results before administering certain medications.

- Bipolar I disorder: People have experienced one or more episodes of mania. Most people with bipolar I will have episodes of both mania and depression, but an episode of depression isn't some criteria for a diagnosis. The depressive episodes usually last at least 2 weeks. To be diagnosed with bipolar I, your manic episodes must last at least 7 days or be so severe that you need hospitalization.
- Bipolar II disorder: People experience depressive episodes and hypomanic episodes. But they never experience a full manic episode that's characteristic of bipolar I disorder. While hypomania is less impairing than mania, bipolar II disorder is often more debilitating than bipolar I disorder due to chronic depression being more common in bipolar II.
- Cyclothymic disorder: People have a chronically unstable mood state. They experience hypomania and mild depression for at least 2 years. People with cyclothymic disorder may have brief periods of euthymic, but these periods last fewer than 8 weeks.

The treatment modality of bipolar disorder is related to the phase of the episode (i.e., depression or mania) and the severity of that phase, and it may involve a combination of psychotherapy and medication. Evaluation of patients with mania, hypomania, or mixed episode, and those with bipolar depression, for suicidality, homicidally, acute or chronic psychosis, or other unstable or dangerous conditions. The drugs mainly used in the conditions are Benzodiazepines, Antimanic agents, Anticonvulsants, Antipsychotics, Dopamine agonists. Our patient here is treated with anticonvulsant and antipsychotics showing significant improvement in his symptoms.

## CONCLUSION

The cases of mental illness and suicide rates following Post Covid Illness has raised all over the world. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide as stated by World health organization. The Covid itself causes mental illness in patients and further more due to the fear of the disease causes stress in patient causing anxiety, depression like symptoms. The lack of public awareness about the mental illness in Covid and neglecting the mental health aspects while treating any patient of covid has increased the illness. The person in quarantine must also be cared for not only the physical illness but also the mental outcomes caused by the virus.

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