Research Article

Psychiatric and Medical Comorbiditiesinpatients With Bipolar Disorder: A Hospital Based Study

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Abstract

The two most common bipolar disorders are bipolar I disorder and bipolar II disorder. Comorbid psychiatric disorders usually precede the onset of bipolar disorder. Bipolar disorder often coexists with other Axis I and Axis II disorders. Studies have shown that patients with mood disorders have more comorbid medical illnesses. Research has suggested that that there may be underlying biological mechanisms linking mood disorder and many medical illnesses.The current study will determine the psychiatric and medical disorders in a sample of patients with bipolar affective disorder in a general hospital setting.

Aims and Objectivest: study the socio-demographic profile of patients with Bipolar affective disorder, to study the prevalence of psychiatric comorbidities in patients with Bipolar affective disorder and to study the prevalence of medical comorbidities in patients with Bipolar affective disorder.

Methodology: This cross-sectional study was conducted at the department of Psychiatry, Sher-I-Kashmir Institute of Medical Sciences (SKIMS), Medical College and hospital, Bemina, Srinagar, Jammu and Kashmir. Psychiatry department at SKIMS-MC is a General Hospital Psychiatry unit.

Results: In the present study the mean age of patients was 34.3 years, Majority of patients were females, married. In this study, obesity/ weight gain (n=52), chronic headache (n=45), hypertension (n=30), elevated serum lipids (n=28), thyroid disorders (n=19), diabetes (n=12), GERD (n=9), CAD (n=4), epilepsy (n=2), COPD (n=2), bronchial Asthma (n=1), Parkinson's disease (n=1), CKD (n=1) were among the medical comorbidities. In this study the most prevalent psychiatric disorders in patients with BPAD were Substance use disorder (n=32), somatoform disorders (n=18), Generalized anxiety disorder (n=12), obsessive and compulsive disorder (n=11), panic disorder (n=9), simple phobia (n=7), eating disorders (n=5), social phobia (n=4), and PTSD (n=2).

Conclusion: The current study suggested that patient suffering from bipolar affective disorder are at increased risk of developing medical or psychiatric comorbidities. It is very important for the treating physician to be aware of the prevalent medical and psychiatric conditions patients with bipolar affective disorders and knowledge of these comorbidities help in prevention, early detection and treatment of such illnesses as well will improve treatment response and prognosis in bipolar patients itself. Awareness among healthcare professionals about the risks to which patients withaffective disorders are exposed is of great importance, as the medical illnessesare likely to coexist with a mood disorder, which may help to improvediagnostics and management and therefore clinical and social care for patients. Overall, the presence of comorbidities in BPD has negative prognostic implications for psychological health and for medical well-being and longevity. In order to improve quality of life, prognosis and life expectancy for those with these illnesses, it is important that further researches on this topic should be continued.

Keywords: Bipolar Disorder; Psychiatric Comorbidity; Medical Comorbidity; Anxiety Disorders; Substance Abuse

Background

A complex, chronic mood disorder involving repeated episodes of depression and mania/hypomania is referred as Bipolar disorder [1]. The two most common bipolar disorders are bipolar I disorder and bipolar II disorder. The lifetime prevalence of MDD Is around 12.2% to 16.2% [2,3] while as the prevalence of bipolar disorder are significantly lower, ranging from 0.9% to 4.4% [4,5]. In Bipolar disorder I prevalence has been found to range from 0.8% to 3.3% [6,7] while as in Bipolar disorder II prevalence has been estimated at around 0.5% to 1.1% [8] The presence of more than one disorder in a person, for a defined period of time is referred as Comorbidity[9] Comorbidity can be of three main types:[10]

1. Comorbidity of physical and psychiatric disorders, e.g. depression and hyperthyroidism;

2. Comorbidity of related disorders, e.g. anxiety and depression; and

3. Comorbidityof disorders indirectly related, e.g. psychotic depression and substance abuse.

Comorbid psychiatric disorders usually precede the onset of bipolar disorder. Bipolar disorder often coexists with other Axis I and Axis II disordersand studies have found that psychiatric comorbidity in bipolar disorder range from 50% to 70% [11], In a Study with bipolar disorder, 65% patients met DSM-IV criteria for at least 1 comorbid lifetime Axis I disorder, whereas 42% had 2 or more Axis I comorbidities, and 24% had 3 or more [12]. Bipolar patients with psychiatric comorbidity had more mixed features, depressive episodes, and suicide attempts; poorer outcome and treatment compliance [10]. In another study, substance use disorders also follow the onset of bipolar disorder [13]. Sixty percent of premature deaths in those with serious mental illness are as a result of general medical conditions [14]. Studies have shown that patients with mood disorders have more comorbid medical illnesses. Researchhas suggested that that there may be underlying biological mechanisms linking mood disorder and many medical illnesses [15-18].

The current study will determine the psychiatric and medical disorders in a sample of patients with bipolar affective disorder in a general hospital setting.

Aims and Objectives

a) To study the socio-demographic profile of patients with Bipolar affective disorder.

b) To study the prevalence of psychiatric comorbidities in patients with Bipolar affective disorder.

c) To study the prevalence of medical comorbidities in patients with Bipolar affective disorder.

Material and Methods

This cross-sectionalstudy was conducted at the department of Psychiatry, Sher-I-Kashmir Institute of Medical Sciences(SKIMS),Medical College and hospital, Bemina, Srinagar, Jammu and Kashmir. Psychiatry department at SKIMS-MC is a General Hospital Psychiatry unit. The study was approved by institutional ethical committee.

The patients attending the hospital outpatient department giving a voluntary consent were included in the study. The present study was conducted on patients with bipolar affective disorder. The sample comprised 100 patients attending psychiatry OPD diagnosed as Bipolar Affective Disorder using ICD 10 during the period of june 2017 to june 2018 [19]. The diagnosis for the study group was confirmed by M.I.N.I (Mini International Neuropsychiatric Interview) [20]. The following inclusion and exclusion criteria were used in the study.

Inclusion Criteria for patient:

a) Patients should fulfill ICD -10 criteria for Bipolar affective disorder.

b) Age of the patient should be 18 years or above.

c) Illness duration of at least 12 months.

d) Patients who are able to provide informed consent.

Exclusion Criteria for patient:

a) Patients aging below 18 years of age.

b) Patients who are not willing to participate.

c) Patients who had medical or psychiatric illness before the diagnosis of BPAD.

Methodology

Instruments:

a) Demographic profile and clinical data sheet of patients.

Intake data of each patient was recorded on a specially designed proforma. This consisted of details about age, sex, marital status, educational status, occupation, socioeconomic status, residence, type of family.

b) International Classification of Mental and Behavioral Disorders (ICD-10)

[19] Based on the clinical assessment, the diagnosis was made according to ICD-10 clinical descriptions and diagnostic guidelines.

c) Mini-International Neuropsychiatric Interview (M.I.N.I) [20]

The Mini-International Neuropsychiatric Interview (M.I.N.I.) is a short structured diagnostic interview, developed jointly by psychiatrists and clinicians in the United States and Europe, for DSM-IV and ICD-10 psychiatric disorders.

Results

In the present study the mean age of patients was 34.3 years, Majority of patients i.e. 31% (n=31) were from 30-39 years of age group followed by 26% (n=26) of patients in the age group of 20-29 years ,17% (n=17) in ≥ 50 years,14% (n=14) in the age group of 40-49years and 12% (n=12) < 20years. Majority of BPAD patients were females i.e. 53% (n=53) and males were 47% (n= 47). Among 100 patients most of them were married 63% (n=63) and 37% (n= 37) were unmarried with no formal education i.e. 36% (n=36) , 32% (n=32%) had secondary education, 26% (n=26) were graduate and 6% (n=6) had primary education. Majority of the patient in our study belonged to low socioeconomic status i.e.60% (n= 60) and 40% (n=40) belonged to middle socioeconomic status. Most of patients i.e. 86% (n=86) had rural residence and 14% (n=14) had urban residence (Tables 1-5) and (Figure 1).
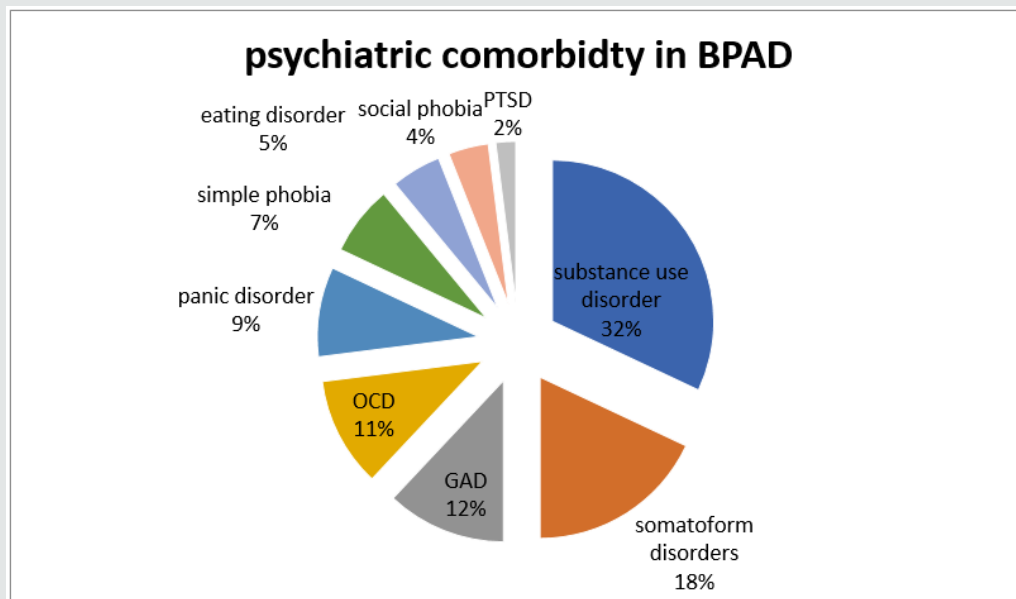
Figure 1: Psychiatric comorbidty in BPAD.

Table 1: Showing socio-demographic distribution of patients.

Patient Variables		Frequency(n=100) (%age)
Age (years)	< 20	12(12%)
	20-29	26(26%)
	30-39	31(31%)
	40-49	14(14%)
	≥ 50	17(17%)
	Mean ± SD	34.3±12.86
Gender	Male	47(47%)
	Female	53(53%)
Marital Status	Unmarried	37(37%)
	Married	63(63%)
Educational Status	No formal education.	36(36%)
	Primary	6(6%)
	Secondary	32(32%)
	Graduate	26(26%)
Occupation	Unemployed	10(10%)
	Labourer	24(24%)
	Student	16(16%)
	Housemaker	34(34%)
	Employed	16(16%)
Socioeconomic Status	Low	60(60%)
	Middle	40(40%)

Table 2: Showing socio-demographic distribution of patients.

Medical Illness Distribution of patients as per residence	No. of patients	% age of patients with BPAD
Residence	Frequency (n=100) (%age)	
Rural	86(86%)	
Urban	14(14%)	

Table 3: Showing socio-demographic distribution of patients.

Showing Psychiatric and Medical illness in family Member		
Mental and medical illness		Percentage
Mental Illness in other family member	Present	18%
	Absent	82%
Medical Illness in other family member	Present	13%
	Absent	87%

Table 4: Showing socio-demographic distribution of patients.

Medical Illness		No. of patients
Obesity/weight gain		52
Chronic Headache		45
Hypertension		30
Elevated serum lipids		28
Hypothyroidism		19
Diabetes type 2		12
GERD		9
Coronary artery disease	4	
Epilepsy	2	
COPD	2	
Bronchial Asthma	1	
Parkinson's disease	1	
CKD	1	

Table 5: Showing socio-demographic distribution of patients.

Psychiatric disorder	No. of patients	%age of patients
Substance use disorder	32	32%
Somatoform disorders	18	18%
Generalized anxiety disorder	12	12%
OCD	11	11%
Panic disorder	9	9%
Simple phobia	7	7%
Eating disorders	5	5%
Social phobia	4	4%
PTSD	2	2%

In 82% (n=82) of patients there was no family history of psychiatric illness and in 18% (n=18) of patients, mental illness in any other family member was present. In present study, 87% (n=87) of patients, no medical illness was present in family member and 13% (n=13) of patients had medical illness present in family In this study, obesity/ weight gain (n=52), chronic headache (n=45), hypertension (n=30), elevated serum lipids (n=28), thyroid disorders (n=19), diabetes (n=12), GERD (n=9), CAD (n=4), epilepsy (n=2), COPD (n=2), bronchial Asthma (n=1), Parkinson's disease (n=1), CKD (n=1) were among the medical comorbidities. In this study the most prevalent psychiatric disorders in patients with BPAD were Substance use disorder (n=32), somatoform disorders (n=18), Generalized anxiety disorder (n=12), obsessive and compulsive disorder (n=11), panic disorder (n=9), simple phobia (n=7), eating disorders (n=5), social phobia (n=4), and PTSD (n=2).

Discussion

This study examined the Medical and psychiatric comorbidity in patients with Bipolar Disorder. Bipolar disorder (BPD) is highly prevalent disorder by the presence of comorbid conditions and these comorbidities has negative prognostic implications for psychological and medical well-being and longevity.[16,17] Bipolar disorders are associated with psychiatric and medical comorbidities and simultaneous diagnosis and their treatment is equally important [21,22]. Most patients suffering from bipolar disorder met criteria for 3 or more lifetime psychiatric disorders. Patients with bipolar disorder has impairment even during the period of remission due to physical and psychiatric comorbidities and can lead to disability. WHO classification of disability have placed BPD seventh in the disability cause [23-26], The complex mechanisms underlying the comorbidity in Bipolar disorders may suggest that the causal relationships are likely to be bidirectional [27,28].

In our sample the medical conditions associated with bipolar disorder were Obesity/weight gain(52%), Headache (45%), Hypertension (30%), Elevated serum lipids (28%), Thyroid disorders (19%), Diabetes (12%), GERD (9%), Coronary artery disease (4%), Epilepsy and COPD 2% each, Parkinson's disease, Bronchial Asthma, and chronic kidney disease 1 % each.

Burden of overweight has increased rapidly over the past decades globally. Obesity/Overweight are emerging as an important public health problem in India [29,30]. In India reported prevalence of overweight in range of 1.5%–24.0%in general population and showed rapid increase [31]. In our study the 53% patients showed weight gain which is higher than the prevalence in general population, Patients with Bipolar disorder tend to be overweight and reason could be the treatment of bipolar disorder especially valproate, carbamazepine, Lithium and antipsychotics which may also increase the risk of other comorbid medical disease [32-36].

Another reason for could be the comorbid eating disorder which includes the excessive carbohydrate consumption and low rates of exercise [37,38]. Headache is prevalent in every country affecting both genders and all socioeconomic levels. In general the percentages of the adult population with an active headache is 46% [41,42].

In our study 47% patients were suffering from headaches which is almost similar to the prevalence of general population. The connection between migraines and bipolar disorder is so strong that over one-third of people living with bipolar suffer from migraines [43,44]. Researchers think that there may be a genetic abnormality in serotonin, dopamine and glutamine neurotransmitters that contributes to both migraine headaches and bipolar disorder [45]. Hypertension is an important public health problem in developed and developing nations [46,47].The prevalence of hypertension in general population is 20.9% and in our study 30% patients with BPAD was suffering from hypertension which is higher than the general population [48]. The link between bipolar affective disorder and hypertension depends upon various factors such as Life styles, obesity and psychotropic medicines in particular second-generation antipsychotics are likely to play a role [49-51].

The effect of psychotropic medications and associated weight gain or the complications of treatment with some atypical antipsychotics may lead to diabetes as well as a marked increase of serum lipids [52]. A bipolar disorder and metabolic disorders, such as coronary artery disease and diabetes type 2, have strong genetic links and may share some common pathophysiological pathways [53]. The comorbidity of thyroid disorder in individuals with bipolar disorders has a well-established link. Lithium a mood stabilizer which is a common treatment for bipolar disorder can also lead to thyroid disorders as a common side-effect of the drug [54]. A higher burden of medical illness is indicative of a more severe illness course, with greater impairment in functioning which has been also seen in previously reported findings.The presence of a medical condition increases the risk of developing a mood episode/ disorder and vice versa [49]. Bipolar disorder often coexists with other Axis I disorders.In our study the psychiatric disorders associated with bipolar affective disorders were Substance use disorder (32%), somatoform disorders (18%), Generalized anxiety disorder (12%), obsessive and compulsive disorder (11%), panic disorder (9%), simple phobia (7%8), eating disorders (5%), social phobia (4%), and PTSD (2%).

Psychiatric disorders with bipolar disorder compared to their rates in the general population are higher and can pose a therapeutic challenge as well as a diagnostic dilemma [55]. A careful assessment, accurate history form bipolar patient is a challenge

due to overlap between symptoms of BPAD and other psychiatric conditions.

Comorbid Substance use disorder was found to exist in 48- 61% of patients with bipolar affective disorder in some studies [56-58]. The significant indicator for the course of bipolar disorderisdrug abusewith regard to the individual and in relation to family history of drug abuse. Patients with bipolar affective disorder are at higher risk for anxiety disorders including generalized anxiety disorder, simple phobia, social phobia, obsessive-compulsive disorder, posttraumatic stress disorder, and panic disorder [59,60]. Substance use and anxiety disorders are higher in patients with bipolar disorder than in general population, similar results were found in our study [61,62].

Conclusion

The current study suggested that patient suffering from bipolar affective disorder are at increased risk of developing medical or psychiatric comorbidities. It is very important for the treating physician to be aware of the prevalent medical and psychiatric conditions patients with bipolar affective disorders and knowledge of these comorbidities help in prevention, early detection and treatment of such illnesses as well will improve treatment response and prognosis in bipolar patients itself.Awareness among healthcare professionals about the risks to which patients withaffective disorders are exposed is of great importance, as the medical illnessesare likely to coexist with a mood disorder, which may help to improvediagnostics and management and therefore clinical and social carefor patients. Overall, the presence of comorbidities in BPD has negative prognostic implications for psychological health and for medical well-being and longevity. In order to improve quality of life, prognosis and life expectancy for those with these illnesses, it is important that further researches on this topic should be continued.

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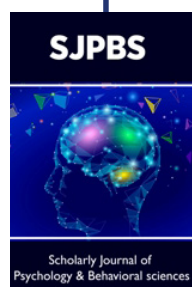
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