Determining the Incidence of Bipolar Disorder in Patients Treated for Major Depression: An Observational Study

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Abstract

Aim: The aim of the present study was to assess the proportion of patients with features of bipolar disorder amongst those primarily diagnosed and treated as major depressive disorder and compare the symptom profile of unipolar depression and bipolar depression.

Methods: The present study was conducted in the Department of Psychiatry for one year who were being treated as Major Depressive Disorder according to DSM-4 TR and were receiving antidepressant medications, were included in the study. 200 patients were included in the study. All the patients were above age of 18 years and have informant available. Participants were included in the study after taking informed consent.

Results: 64% were females. Majority of selected patients were married females (78%). 19% patients were illiterate and 80% were hindus. 52% were staying in nuclear family and 85% belonged to urban area. 85% patients had no history of suicide and there was no family history of any psychiatric illness in 60%. 170 patients had bipolar disorder and 30 patients had unipolar disorder. Patients having Bipolar Mood disorder were significantly younger than unipolar depression. No significant difference was found in sex, marital status, education, religion, income, family type, occupation or locality between two groups. Number episodes of illness were significantly higher in bipolar mood disorder than unipolar. Family history of mood disorder was significantly higher in bipolar disorder group than unipolar. In clinical features, there was no significant difference in suicide attempt between both groups. Significant difference was found in diurnal variation. Psychotic features were significantly higher in bipolar mood disorder patients than unipolar depression.

Conclusion: It is clear that with high index of suspicion, bipolarity is patently diagnosable in a substantial proportion of patients being treated as unipolar major depression. They have difference in clinical features from unipolar depression in the form early age of onset, positive family history for mood disorder, more number of mood episodes and presence of psychotic features during the depressive episode and course of illness.

Keywords: Unipolar Depression, Bipolar Depression, Major Depressive Disorder, Incidence.

Introduction

Bipolar disorder (BD) is a chronic disease characterized by repeated manic and depressive episodes alternating over a long period of time after disease onset with an extremely high risk of relapse and recurrence. [1,2] It is further known that many patients with BD have more prolonged depressive episodes than manic episodes during the illness. [3,4] In an approximate 13-year prospective follow-up of patients with BD, the depressive episode duration was approximately 3 times (bipolar I disorder (BD-I)) to 40 times (bipolar II disorder (BD-II)) longer than the manic episode duration. [3,4] The majority of patients with BD visit psychiatrists during depressive episodes, which may reflect their greater self-awareness of depression com- pared with their awareness of experiencing mania/hypomania. [5]

Differentiating in the clinical setting between bipolar depression and major depressive disorder (MDD) in patients with a major depressive episode (MDE) is critical because patients with BD who present with an MDE are likely to be diagnosed with MDD. This occurs because depressive episodes exist with both disorders (BD and MDD), and patients and physicians may not be aware of prior or future episodes of mania/hypomania. [6] Major Depressive disorders (MDDs) are considered to be the most frequently encountered form of mental illness. [7] It is one of the most frequent medical causes of lost productivity in the workplace and is associated with considerable social and functional impairment. [8]

Major depression also occurs in the context of bipolar disorder, and patients with bipolar disorder

frequently experience one or more major depressive episodes before the onset of their first hypomanic or manic symptoms. Bipolar I disorder, characterized by recurrent manic and depressive episodes, is estimated to have a 12-month prevalence of 0.6% to 2.8%. [9,10] In part related to suicide but also due to medical comorbidities and other illness-related factors that impede medical care, patients with bipolar disorder and major depression are estimated to have an 8- to 12-year reduction in longevity. [11,12] There is a critical need for developing better treatments for these disorders, as many patients have inadequate responses, fail to respond at all, or cannot tolerate the side effects of current medications.

In an Indian study of 2017 by Kamal et al [13] which compared socio demographical correlates of unipolar and bipolar depression, in study 330 cases were taken out of which 164 of unipolar depression and 166 of bipolar depression. They found male gender, employment status, Hindu religion, onset of illness and chronicity are risk factors for bipolar depression. A similar study by Nisha et al [14] 2015, found that bipolar depression had younger age of onset, longer duration of illness, more frequent episodes and hospitalization. Psychotic symptoms like delusion and auditory hallucination were significantly high in bipolar depression patients. The new diagnostic category in DSM 5 untitled Major Depressive Disorder with mixed features is applied to individuals who meet criteria for MDD and have concurrent sub syndromal hypomanic or manic features. Mixed symptoms are more common in bipolar depression than unipolar depression.

The aim of the present study was to assess the proportion of patients with features of bipolar disorder amongst those primarily diagnosed and treated as major depressive disorder and compare the symptom profile of unipolar depression and bipolar depression.

Materials and Methods

The present study was conducted in the Department of Psychiatry Netaji Subhas medical College and Hospital, Amhara, Bihta, Patna, Bihar, India for one year. who were being treated as Major Depressive Disorder according to DSM-4 TR and were receiving antidepressant medications, were included in the study. 200 patients were included in the study. All the patients were above age of 18 years and have informant available. Participants were included in the study after taking informed consent.

Exclusion Criteria

1.   Those who were unwilling for the interview

2.   Those who had medical emergencies.

3.   Those who had co morbid psychiatric illnesses like substance use disorder, personality disorder or obsessive compulsive disorder, mental retardation, seizure disorder, cognitive impairment, permanent neurological deficit, affective illness secondary to substance use, psychosis outside mood episode.

Procedure and Assessment: Each participant completed a case sheet with demographic information, current clinical diagnosis, treatment received and previous psychiatric consultation or hospitalization if any, to establish a diagnosis of depression and to check severity of episodes following scales were applied.

Scales

Hamilton rating scale for depression (HAM-D) [15]

The 21-item HAM-D for assessing the severity of depression was developed by Max Hamilton in 1960. It is instrument for rating depression with very high reliability and validity. It is a time tasted instrument. Each item is scored from 0-4 or 0-3 or 0-2 with score range of 0- 66. Higher the score, higher the severity of depression.

GAF (Global Assessment of Functioning) [16]

Scale was developed by Jones et al with reasonable reliability and validity. Impairment in psychosocial and occupational functioning as well as personal care and symptoms severity is taken into consideration. It does not include impairment due to physical or environmental conditions. The score ranges from 0 to 100. It has been objectively specified that loss of progressive functioning reduces the total score. Lower the score, poorer the global functioning of patient.

Hypomania Check List -32: [17]

This scale was developed by J. Angst, R. Adolfsson and colleagues in 2004-05 with sensitivity of the instrument 80% and specificity of 51%. It is a self-reported instrument which consists of 32 statements. The patient has to answer yes or no. Each yes is given a score of 1 and the total gives the final score. An HCL score range from 0-32, the cut off is 14 for positive result.

Mood Disorder Questionnaire (MDQ): [18]

It was developed by Hirschfield et al (2000). It has sensitivity of 0.73 and specificity of 0.90. It is also a self- reported instrument. It basically pertains to hypomania symptoms. It consists of 13 questions. The patient has to answer yes or no. Each yes is given a score of 1 and the total score is final score. Range is 0-13 and cut off for positive result is 7. There is also specifier that those symptoms occurred during same period. Subjective distress

ranging from no distress to severe distress is also noted.

HCL 32 and MDQ Gujarati versions were used. The cronbach alpha for the translation was 0.959 and 0.943 which indicate very good reliability. The educated patients completed these on their own, while those who had no formal education, data were completed by verbally reading out by the researcher.

Patients who scored 14 or more on HCL32 and /or score 7 or more on MDQ were assessed in detailed by MINI (International Neuropsychiatric Interview) (Sheehan et al.1998)26 for the presence of Axis I disorders according to DSMIV The patients were categorized into 2 main subgroups (Bipolar disorder, Bipolar –I and Bipolar–II vs. No bipolar Disorder).

Results

Table 1: Demographic characteristics

		Number of Patientsn=200	%
Sex	Male	72	36
	Female	128	64
Marital status	Single	16	8
	Married	156	78
	Widowed	24	12
	Divorced	4	2
Occupation	Professional	6	3
	Clerical	2	1
	Skilled work	8	4
	Semiskilled work	48	24
	Unskilled work	56	28
	Unemployed	80	40
Education	Graduate	10	5
	Post high school	12	6
	High school (matriculation)	40	20
	Middle school	48	24
	Primary school	52	26
	Illiterate	38	19
Religion	Hindu	160	80
	Islam	32	16
	Sikh	6	3
	Others	2	1
Family type	Nuclear	104	52
	Joint	96	48
Locality	Urban	170	85
	Rural	30	15

64% were females. Majority of selected patients were married females (78%). 19% patients were illiterate and 80% were hindus. 52% were staying in nuclear family and 85% belonged to urban area.

Table 2: Disease related characteristics

		Number of PatientsN=100	%
Suicide	0	168	84
	1	10	5
	2	10	5
	3	8	4
	4	4	2
Diurnal variation	No	104	52
	Worse in am	40	20
	Worse in pm	56	28
Psychotic features	No	150	75
	Suspicious	30	15
	Ideas	10	5
	Delusions	10	5
Family history	Positive	40	20
	Negative	120	60

	MDD	10	5
	BMD	12	6
	Psychosis	10	5
	Others	4	
G A F	41-50	16	8
	51-60	60	30
	61-70	90	45
	71-80	30	15
	81-90	4	2

85% patients had no history of suicide and there was no family history of any psychiatric illness in 60%.

Table 3: Comparison of patients having Unipolar Depression (MDD) and Bipolar Mood Disorder (BMD)

		Bipolar N=170 N/mean	Unipolar N=30 N/mean	
Age		42.54±11.69	38.22±10.73	p = 0.0106
Sex	Male	35.7	12	p=0.38
	Female	64.3	18	
Marital status	Single	6	6	
	Married	77.4	24	
	Widowed	15.5	0	p=0.17
	Divorced	1.2	0	
Occupation	Professional	2.4	2	
	Clerical	1.2	0	
	Skilled work	4.8	0	p= 0.9410
	Semiskilled Work	25.6	8	
	Unskilled Work	27.4	10	
	Unemployed	39.3	10	
Education	Graduation	4.8	2	
	Post High school	4.8	4	
	High school (matriculation)	15.5	12	p= 0.1891
	Middle school	26.2	4	
	Primary school	27.4	6	
	Illiterate	21.4	2	
Religion	Hindu	76.2	28	
	Islam		2	
	Sikh	3.6	0	p=0.2758
	Others	1.2	0	
Family type	Nuclear	52.4	14	
	Joint	47.6	16	p=0.2632
GAF	41-50	8.33	0	
	51-60	30.95	8	
	61-70	44.04	15	p=0.692
	71-80	14.28	7	
	81-90	2.38	0	
Diurnal variation	Present	90	8	p=0.06
	Absent	80	22	
Psychotic features	Present	35	14	p=0.023
	Absent	135	16	

170 patients had bipolar disorder and 30 patients had unipolar disorder. Patients having Bipolar Mood disorder were significantly younger than unipolar depression. No significant difference was found in sex, marital status, education, religion, income, family type, occupation or locality between two groups. Number episodes of illness were significantly higher in bipolar mood disorder than unipolar. Family history of mood disorder was significantly higher in bipolar disorder group than

unipolar. In clinical features, there was no significant difference in suicide attempt between both groups. Significant difference was found in diurnal variation. Psychotic features were significantly higher in bipolar mood disorder patients than unipolar depression.

Discussion

Recurrent episodes of depression are common in both unipolar and bipolar disorder, but diagnostic and clinical problem with bipolar mood disorder is that hypomanic episodes usually go unnoticed by caretakers, and also they just consider it as phase of over activity as it causes less or no distress to patients as well as caretakers. Whereas depressive episodes, which also have frequent occurrence are distressing and patients seek treatment for that. As a result, clinicians usually treat the depressive episodes but tend to miss history of hypomanic episodes and on occasion, full-fledged manic episodes results. [19,20]

64% were females. Majority of selected patients were married females (78%). 19% patients were illiterate and 80% were hindus. 52% were staying in nuclear family and 85% belonged to urban area. 85% patients had no history of suicide and there was no family history of any psychiatric illness in 60%. BRIDGE [21] study showed younger age of onset of psychiatric symptoms before 30 years of age in bipolar depression compared to unipolar depression. Smith et al [22] showed similar results. Study showed mean age of onset 20 years for bipolar depression and 26.6 years for unipolar depression. Those were in keeping with our study. A study by Nisha et al [23] also showed early age of onset in bipolar depression than unipolar depression. It suggests that clinicians should take extra precaution and screen for bipolarity features before using antidepressants alone when patient presents with depression in early life especially adolescents and young adults.

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whereas in Smith et al [22] it showed no significant difference for family history of mood disorder in both bipolar and unipolar depression group. Judith et al [24] conducted study in 74 subjects with depressive episodes (including both unipolar and bipolar mood disorder) from NIMH clinical research centre of study of depression in Duke University.

There are clear differences in the optimal management of both bipolar and unipolar depression. So it is important to distinguish between these two conditions clinically. It is commonly assumed that there are no important differences between unipolar and bipolar depression clinically. But many a times, patients with bipolar mood disorder have their first episode of illness as depression rather than mania, so it is desirable to recognize and differentiate in order to treat specifically in the early stage of illness. In clinical features, there was no significant difference in suicide attempt between both groups. Significant difference was found in diurnal variation. Psychotic features were significantly higher in bipolar mood disorder patients than unipolar depression. Liz forty et al [25] (2008) carried out a study in 593 patients of unipolar major depression and 443 patients of bipolar mood disorder and studied clinical presentation of depression amongst them. Depression was associated with presence of psychotic features, diurnal variation of mood, and hypersomnia during depressive episodes and greater number of episodes. Benazzi et al [26] (1997) made a cross sectional epidemiological survey of 203 consecutive patients of major depression in a private setting. They found that patients of bipolar disorder II were associated with early age of onset and more atypical features, psychotic features and more frequent depressive episodes. In an Indian study of 2017 by Kamal et al [27] which compared socio demographical correlates of unipolar and bipolar depression, in study 330 cases were taken out of which 164 of unipolar depression and 166 of bipolar depression. They found male gender, employment status, Hindu religion, onset of illness and chronicity are risk factors for bipolar depression.

Conclusion

It is clear that with high index of suspicion, bipolarity is patently diagnosable in a substantial proportion of patients being treated as unipolar major depression. They have difference in clinical features from unipolar depression in the form early age of onset, positive family history for mood disorder, more number of mood episodes and presence of psychotic features during the depressive episode and course of illness. All the patients of unipolar depression must be screened for bipolarity to give them specific treatment with better results and better quality of life.

References

1. Kanba S, Kato T, Terao T, Yamada K, Committee for Treatment Guidelines of Mood Disorders, Japanese Society of Mood Disorders, 2012. Guideline for treatment of bipolar disorder by the Japanese Society of Mood Disorders, 2012. Psychiatry and clinical neurosciences. 2013 Jul;67(5):285-300.

2. Keller MB, Lavori PW, Coryell W, Endicott J, Mueller TI. Bipolar I: a five-year prospective follow-up. The Journal of nervous and mental disease. 1993 Apr 1;181(4):238-45.

3. Judd LL, Akiskal HS, Schettler PJ, Coryell W, Endicott J, Maser JD, Solomon DA, Leon AC, Keller MB. A prospective investigation of the natural history of the long-term weekly symptomatic status of bipolar II disorder. Archives of general psychiatry. 2003 Mar 1;60 (3):261-9.

4. Judd LL, Akiskal HS, Schettler PJ, Endicott J, Maser J, Solomon DA, Leon AC, Rice JA, Keller MB. The long-term natural history of the weekly symptomatic status of bipolar I disorder. Archives of general psychiatry. 2002 Jun 1;59(6):530-7.

5. Dell'Osso L, Pini S, Cassano GB, Mastrocinque C, Seckinger RA, Saettoni M, Papasogli A, Yale SA, Amador XF. Insight into illness in patients with mania, mixed mania, bipolar depression and major depression with psychotic features. Bipolar disorders. 2002 Oct;4(5):315-22.

6. Hirschfeld RM, Lewis L, Vornik LA. Perceptions and impact of bipolar disorder: how far have we really come? Results of the national depressive and manic-depressive association 2000 survey of individuals with bipolar disorder. Journal of Clinical Psychiatry. 2003 Feb 2;64(2):161-74.

7. Wittchen HU, Jacobi F. Size and burden of mental disorders in Europe—a critical review and appraisal of 27 studies. European neuropsychopharmacology. 2005 Aug 1;15(4): 357-76.

8. Pirkola S, Saarni S, Suvisaari J, Elovainio M, Partonen T, Aalto AM, Honkonen T, Perälä J, Lönnqvist J. General health and quality-of-life measures in active, recent, and comorbid mental disorders: a population-based health 2000 study. Comprehensive psychiatry. 2009 Mar 1;50(2):108-14.

9. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 5th ed. Washington, DC, American Psychiatric Association, 2013.

10. National Institute of Mental Health: Bipolar disorder.

11. Kessing LV, Vradi E, Andersen PK. Life expectancy in bipolar disorder. Bipolar disorders. 2015 Aug;17(5):543-8.

12. Chang CK, Hayes RD, Perera G, Broadbent MT, Fernandes AC, Lee WE, Hotopf M, Stewart R. Life expectancy at birth for people with serious mental illness and other major disorders from a secondary mental health care case register in London. PloS one. 2011 May 18;6(5):e19590.

13. Kalita KN, Hazarika J, Sharma M, Saikia S, Patangia P, Hazarika P, Sarmah AC. Sociodemographic correlates of unipolar and bipolar depression in North-East India: A cross-sectional study. Indian journal of psychological medicine. 2017 Jan;39(1):46-51.

14. Nisha A, Sathesh V, Punnoose VP, Varghese PJ. A comparative study on psycho-socio-demographic and clinical profile of patients with bipolar versus unipolar depression. Indian journal of psychiatry. 2015 Oct;57(4):392.

15. Hamilton M. A rating scale for depression. Journal of neurology, neurosurgery, and psychiatry. 1960 Feb;23(1):56.

16. Jones SH, Thornicroft G, Coffey M, Dunn G. A brief mental health outcome scale: Reliability and validity of the Global Assessment of Functioning (GAF). The British Journal of Psychiatry. 1995 May;166(5):654-9.

17. Angst J, Adolfsson R, Benazzi F, Gamma A, Hantouche E, Meyer TD, Skeppar P, Vieta E, Scott J. The HCL-32: towards a self-assessment tool for hypomanic symptoms in outpatients. Journal of affective disorders. 200 5 Oct 1;88(2):217-33.

18. Hirschfeld RM, Williams JB, Spitzer RL, Calabrese JR, Flynn L, Keck Jr PE, Lewis L, McElroy SL, Post RM, Rapport DJ, Russell JM. Development and validation of a screening instrument for bipolar spectrum disorder: the Mood Disorder Questionnaire. American journal of psychiatry. 2000 Nov 1;157(11): 18 73-5.

19. Scott J. 2002, overcoming mood swings. Constable Robinson, London. Pp21-36.

20. Angst J, Gamma A. Update on maintenance treatments for bipolar disorder. A Data Given Approach, Barcelona Spain. 2002 Oct 6:4-5.

21. Bschor T, Angst J, Azorin JM, Bowden CL, Perugi GI, Vieta E, Young AH, Krüger S. Are bipolar disorders underdiagnosed in patients with depressive episodes? Results of the multicenter BRIDGE screening study in Germany. Journal of affective disorders. 2012 Dec 15;142(1-3):45-52.

22. Smith DJ, Griffiths E, Kelly M, Hood K, Craddock N, Simpson SA. Unrecognised bipolar disorder in primary care patients with depression. The British Journal of Psychiatry. 2011 Jul;199(1):49-56.

23. Nisha A, Sathesh V, Punnoose VP, Varghese PJ. A comparative study on psycho-socio-demographic and clinical profile of patients

with bipolar versus unipolar depression. Indian journal of psychiatry. 2015 Oct;57(4):392.

24. Hays JC, Krishnan KR, George LK, Blazer DG. Age of first onset of bipolar disorder: demographic, family history, and psychosocial correlates. Depression and Anxiety. 1998;7 (2):76-82.

25. Forty L, Smith D, Jones L, Jones I, Caesar S, Cooper C, Fraser C, Gordon-Smith K, Hyde S, Farmer A, McGuffin P. Clinical differences between bipolar and unipolar depression. The British Journal of Psychiatry. 2008 May;192 (5):388-9.

26. Benazzi F. Prevalence of bipolar II disorder in outpatient depression: a 203-case study in private practice. Journal of affective disorders. 1997 Apr 1;43(2):163-6.

27. Kalita KN, Hazarika J, Sharma M, Saikia S, Patangia P, Hazarika P, Sarmah AC. Sociodemographic correlates of unipolar and bipolar depression in North-East India: A cross-sectional study. Indian journal of psychological medicine. 2017 Jan;39(1):46-51.