ORIGINAL RESEARCH ARTICLE

A Comparative Study of Depressive Episode in Major Depressive Disorder and Bipolar Disorder

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ABSTRACT

Distinguishing between major depressive disorder (MDD) and bipolar disorder is important because there are differences in the optimal management of these conditions. Antidepressant treatment of bipolar depression (BPD) can adversely affect long-term prognosis by causing destabilisation of mood and more frequent depressive episodes, and can lead to the development of treatment resistance. Most people with bipolar disorder experience depression rather than mania as their first episode of illness. It is clinically desirable to recognise, or at least to suspect, bipolar depression at an early stage of a bipolar illness.

OBJECTIVE : Comparison of depressive episode in major depressive disorder and bipolar affective disorder in a tertiary care general hospital, psychiatry unit.

METHOD : 80 cases of unipolar depression and 54 cases of bipolar depression were compared on the basis of socio-demographic profile, family history of mood disorder and clinical features using Semi structured questionnaire for socio-demographic profile and validated Bengali version of Beck Depression Inventory (BDI).

RESULTS : Bipolar depression is characterized by early age of onset, more number of previous episodes, positive family history, more severe in nature associated with prominent features of guilt feeling, self dislike, self accusation, suicidal ideas, irritability, social withdrawal, fatigability and loss of libido. Major depressive disorder shows female preponderance, more number of stressful life events before episodes. Body image change, insomnia, anorexia, weight loss, somatic pre-occupation are more in unipolar depression.

Key Words : comparative study, major depressive disorder, bipolar disorder.

INTRODUCTION

Depressive disorders are among the most frequent psychiatric illnesses both in the community and in the psychiatric settings. In addition to their frequent and serious complications (e.g. suicide and substance use disorders), they are strongly associated with limitations in well-being and daily functioning that are equal to or greater than those of several chronic medical conditions. At present unipolar major depression is estimated to constitute the fourth largest threat to mankind's quality of life, and bipolar disorder the twenty second [1]. In the year 2020, the former will likely be the second

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largest source and the latter the 18th source of human morbidity [2]. Major depressive episodes (MDE) are characteristics of both major depressive disorder (MDD) and bipolar disorder. Diagnostic criteria rely on clinical features and the presence or absence of manic or hypomanic episodes to distinguish between the two diagnoses.

Opinions on the psychopathological characteristics of a depressive episode in unipolar and bipolar depression have evolved over time. Emil Kraepelin (1899) considered the clinical manifestations of unipolar melancholy and depression to be identical during the course of manic - depressive disorder and that the only way to distinguish between them was to observe the long term manifestation of the disease. Most contemporary researchers are of the same opinion [3, 4]. However, an increasing body of clinical observation and research findings indicates that the course, symptoms, genetic characteristics and response to treatment of unipolar and bipolar depressive episodes differ [5]. Major depression is often the first presentation of bipolar I and bipolar II disorder and it would obviously be an advantage if we could predict from the beginning whether an individual has bipolar depression before the appearance of hypomania or mania [6].

Distinguishing between major depressive disorder and bipolar disorder is important because there are differences in the optimal management of these conditions. Antidepressant treatment of bipolar depression can adversely affect long-term prognosis by causing destabilisation of mood and more frequent depressive episodes, and can lead to the development of treatment resistance. Most people with bipolar disorder experience depression rather than mania as their first episode of illness. It is clinically desirable to recognise, or at least to suspect, bipolar depression at an early stage of a bipolar illness.

The main focus of our current work was comparative study of socio-demographic profile, family history and clinical features of those depressed patients with the diagnosis of major depressive disorder and bipolar disorder.

METHODS

Ethical clearance from the institutional ethics committee and permission from the appropriate authority were obtained. All consecutive patients, who gave informed consent and were diagnosed as having Unipolar (Major Depressive Disorder and Recurrent type Major Depressive Disorder) and Bipolar depression at Psychiatry Out Patient Department (OPD) on the basis of case history, mental status examination and Mini International Neuropsychiatric Interview (MINI) and DSM-IV TR criteria were further assessed. Socio demographic data and family history were obtained using a semi-structured questionnaire. For assessment of socio-economic status of the family, Kuppuswamy scale (based on education and occupation of head of the family) was used. For stress factor assessment preceding the onset of illness, Presumptive Stressful Life Events Scale (PSLES) [7] was used. Beck Depression Inventory (BDI) in validated Bengali version [8] was administered to the patients to rate the severity of depression. The patients received management in the form of pharmacotherapy or psychotherapy or both. In the current study, 80 cases of unipolar depression and 54 cases of bipolar depression were included.

RESULTS

Table 1 : Summary of results on different parameters of socio-demographic profile and family history

Variables	Unipolar depression (n = 80)	Bipolar depression (n = 54)	p
Current age (mean)	33.96	35.59	0.35
Sex ratio	M : 30, F : 50	M : 32, F : 22	0.01
Habitat	Rural : 59 Urban : 21	Rural : 40 Urban : 14	0.96
Marital status	Single : 29 Married : 51	Single : 12 Married : 42	0.1
Religion	Hindu : 27 Muslim : 53	Hindu : 12 Muslim : 42	0.14
Education	Illiterate : 17, Educated : 63	Illiterate : 24, Educated : 30	0.004*
Occupation	Employed : 34 Unemployed : 46	Employed : 12 Unemployed : 42	0.03*
Type of family	Nuclear : 63 Others : 17	Nuclear : 38 Others : 16	0.52
Socio economic status (SES)	Lower : 63 Middle : 17	Lower : 44 Middle : 10	0.69
Stressful life events (SLE)	Yes : 52 No : 28	Yes : 6 No : 48	0.01*
Age of onset (mean)	33.38	25.07	0.01*
Past episodes	Yes : 6 No : 74	Yes : 54 No : 0	0.001**
Comorbid medical illness	Yes : 28 No : 52	Yes : 14 No : 40	0.26
Post partum onset	Yes : 2 No : 78	Yes : 5 No : 49	0.09
Psychotic symptoms	Yes : 6 No : 74	Yes : 11 No : 43	0.08
Family h/o psychiatric illness	Yes : 16 No : 64	Yes : 36 No : 18	0.001**

* p< 0.05 (2 - tailed) ** p< 0.01 (2 - tailed)

The mean age in Bipolar Depression group was 35.59 yrs and in Major Depressive Disorder was 33.96 yrs (p value 0.35). In Major Depressive Disorder group, the female population was more in number than male population (p = 0.01). The number of illiterate and low level of education was more in Bipolar depression group (p = 0.004). Unemployment was significantly higher in Bipolar Depression population (p = 0.03). There was no significant difference between the two populations in terms of habitat, marital status, religion, socioeconomic status, type of family and comorbid medical illness. The mean age of onset of illness in unipolar group was 33.38 years and in bipolar group it was 25.07 years (p = 0.001). Bipolar depression group showed more number of previous depressive episodes (p = 0.001) and positive family history of mood disorder (p = 0.001) compared to unipolar depression. Regarding stressful life events, presence of stress was more common in unipolar depression than bipolar depression (p = 0.001).

Considering post partum onset of mood episode and associated psychotic symptoms, we could not find any major difference between the groups. The mean score of unipolar depression group on BDI scale was 26.46 and of bipolar depression group was 38.88 (p = 0.001).

Table 2 : Summary of results from BDI scale (21 items)

Serial No.	Items	p value	Conclusions
A.	Sadness	0.16	Not significant
B.	Pessimism	0.58	Not significant
C.	Sense of failure	0.35	Not significant
D.	Dissatisfaction	0.07	Not significant
E.	Guilt	0.001**	BPD > MDD
F.	Expectation of punishment	0.001**	MDD > BPD
G.	Self dislike	0.014*	BPD > MDD
H.	Self accusation	0.01*	BPD > MDD
I.	Suicidal ideas	0.001**	BPD > MDD
J.	Crying	0.16	Not significant
K.	Irritability	0.001**	BPD > MDD
L.	Social withdrawl	0.001**	BPD > MDD
M.	Indecisiveness	0.01*	BPD > MDD
N.	Body image change	0.02*	MDD > BPD
O.	Work retardation	0.001**	BPD > MDD
P.	Insomnia	0.001**	MDD > BPD
Q.	Fatiguability	0.001**	BPD > MDD
R.	Anorexia	0.02*	MDD > BPD
S.	Weight loss	0.003**	MDD > BPD
T.	Somatic preoccupation	0.01*	MDD > BPD
U.	Loss of libido	0.001**	BPD > MDD

* p< 0.05 (2 -tailed) ** p< 0.01 (2 - tailed)

Guilt feeling, self dislike, self accusation, suicidal ideas, irritability, social withdrawal, fatigability and loss of libido were significantly more in bipolar depression group in comparison to unipolar depression. Body image change, insomnia, anorexia, weight loss, somatic pre-occupation were significantly more in unipolar depression than bipolar depression group.

DISCUSSION

Regarding sex distribution, the unipolar depression group had large number of female cases (nearly 1.5 times than male), which was almost consistent with the results of the National Comorbidity Survey Replication study [9]. In Bipolar Depression group, the male population outnumbered female, which did not go with the findings of previous research [9,10]. Previous work results varied from male female ratio 1:1 to more common in female than male. The mean current age for both the groups varied insignificantly. This finding aided little to the comparison. But regarding age of onset, it was significantly different in both the groups. It was 25 yrs for BPD and 33 yrs for MDD and the difference of

mean was 8 yrs. The findings of bipolar group were consistent with another Indian study [11] where the mean age of onset was 27 yrs. The difference in age of onset of both the group matched with other study findings [12, 13]. Considering marital status, most of the cases of both study groups were married. 51 cases of 80 MDD cases and 42 cases of 54 BPD cases were married. There was no statistically significant difference between the two groups in terms of marital status. This finding was not corroborative with previous research [14] where single (unmarried, divorced, widow) subjects were more prone to develop depressive disorder. Regarding stressful life events, Major Depressive Disorder group significantly outnumbered Bipolar Depression. The finding corroborated with a previous study [14] that concluded : "In Unipolar Depression, negative life events are often present before the onset, but with Bipolar disorder the relationship with life events is unknown". Regarding previous episode of mood disorder, bipolar depression subjects had significantly higher number of episodes than MDD. This supports the study result [13] : "Bipolar depression was associated with family history of bipolar disorder, an earlier age at onset, a greater previous number of depressive episodes, ……". In Unipolar Depression group, Recurrent type Major Depressive Disorder showed previous episodes of depression. Regarding education and occupation, illiteracy, low level of education and unemployment were more common in Bipolar Depression group. This could be explained by early age of onset of illness, family member suffering from psychiatric disorder, multiple number of episode and persistent nature of depressive episode in Bipolar group. Considering family history of psychiatric illness, Bipolar Depression group had significantly positive family history of psychiatric disorder than Major Depressive Disorder group and this corroborated with past research findings [13, 15]. The subjects included in the study were mostly from rural area and Muslim by religion and belonged to lower socio-economic status. This finding can be explained by the nature of the population attending the OPD of the hospital. The patients seeking treatment in this tertiary care hospital are mostly from rural areas of North-24-Parganas of West Bengal. There is no statistically significant difference between the two study groups on the basis of habitat, religion, socio-economic status, type of family and co-morbid medical illness.Apart from early age of onset of illness in bipolar depression group, as already discussed before, Bipolar depression group showed more number of post-partum onset of illness than unipolar group (though the result was not statistically significant). As mentioned in one standard textbook [12] of psychiatry, postpartum onset of depressive episode is indicator of developing bipolar disorder in long term course of illness.Presence of psychotic symptomsalong with depression were more in Bipolar Depression group than Major Depressive Disorder or Unipolar group though this finding was not statistically significant. Earlier studies [16] indicated more frequent psychotic symptoms in Bipolar Depression relative to Unipolar Depression. Considering severity of depression, the scores on BDI scale were always higher in Bipolar depression group than Unipolar Depression in a significant manner. This finding was not corroborative with other studies. Previous study [17] reported no significant difference in episode severity as measured using symptom interviews between Bipolar and Unipolar Depression with the exception of Bipolar Depressed participants exhibiting greater short term mood variability. Regarding sadness and pessimism, there was no significant difference between Unipolar and Bipolar depression in this study. But in large multicentric trial [13], Perils et al found statistically significant difference from the previous mentioned two items between MDD and BPD group. Regarding suicidal thoughts, the result of this study was corroborative with the mentioned study. In another study, [17] Lestar et al found no consistent difference across groups for suicidality. The results on guilt feeling, self dislike and self accusation were significantly more prominent in Bipolar Depression group which could explain their suicidal ideations. Irritability, social withdrawal, work retardation and fatigability are obvious features in bipolar depression group. Regarding

irritability, in a standard textbook [12] of psychiatry, it has been mentioned that depressive mixed states (i.e associated psychomotor excitement, irritable hostility, racing thoughts and sexual arousal during major depression) are more suggestive of bipolar disorder. Our current study result also indicated that social withdrawal, psychomotor retardation and easy fatigability were unique features of Bipolar depression and consistent witha previous study [18] that reports, "Psychomotor slowing, self-blaming/ feelings of worthlessness, increased appetite, leaden paralysis/loss of physical energy, and weight increase were significantly more frequent in Bipolar depression than in Unipolar depression. "Body image change and somatic preoccupation was more in MDD group. Specifically, Unipolar depression was associated with more prevalent anxious mood state, activity and somatisation, suggesting a pattern of great anxiety [17]. Insomnia, anorexia and weight loss were predominantly present in Unipolar depression group. All previous studies [19, 20, 21] concluded that atypical features (hypersomnia ,hyperphagia and weight gain) were present in Bipolar depression. As BDI does not encompass reverse vegetative symptoms, conclusion cannot be drawn about atypical features and bipolar depression from this study. Loss of libido was marked in bipolar depression group and this finding is consistent with another previous study [22] where genital symptoms were significant in Bipolar depression group.

LIMITATIONS

Our study is not beyond limitations. First, this is a hospital based study and subjects were selected from Psychiatry OPD of a tertiary care general hospital. Previous studies comparing these disorders involved large number of sample from hospital / clinic as well as community. Second, the subjects included in the study were not medication naïve. Medication had significant influence on clinical features and course of illness. Third, atypical depressive symptoms or reverse vegetative symptoms are more common in Bipolar Depression. Beck Depression Inventory does not encompasses reverse vegetative symptoms. Hamilton Depression Rating Scale would be better option in this study. Lastly, substance use and comorbid psychiatric symptoms (like anxiety) have not been considered in this study. These factors have significant role in course and outcome of a disorder.

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