



COMPARISON OF ANXIETY IN PATIENTS OF BIPOLAR DISORDER WITH AND WITHOUT SUICIDAL BEHAVIOUR

Manjunath Rajashekharaiiah¹, Alok N Ghanate², Pravin Verma³, Daya Ram⁴

¹Junior Resident, Department of Psychiatry, Shimoga Institute of Medical Sciences, Shimoga – 577201. ²Associate Professor, Department of Psychiatry Mahadevappa Rampure Medical College, Gulbarga – 585105. ³Senior Resident, Department of Psychiatry, Indira Gandhi Government Medical College & Hospital, Nagpur - 440008. ⁴Professor, Department of Psychiatry, Central Institute of Psychiatry, Ranchi – 834006

ABSTRACT

Introduction: Suicidal behaviour is common in bipolar disorder. This is especially true in anxious patients or comorbid anxiety disorder. The effect of subsyndromal anxiety in this group of patients in India needs to be assessed. This study was undertaken to assess comorbid anxiety in patients of bipolar disorder with and without suicidal behavior and to study the relationship of co-morbid anxiety with suicidal behavior in patients with bipolar disorder.

Material & Method: 60 bipolar disorder patients in remission coming to the Central Institute of Psychiatry diagnosed as per DSM IV-TR (American Psychiatric Association, 2000) criteria, 30 with suicidal ideation and 30 without suicidal ideation were taken in the study. Co-morbid conditions other than anxiety were ruled out. They were further assessed on Hamilton Rating Scale for Anxiety.

Results: The suicidal group was significantly more depressed than the Non-suicidal group with $p < 0.001$. Statistically significant positive correlation was found between General Somatic Symptoms (Muscular) item and duration of illness ($r=0.481, p<0.01$). Statistically significant positive correlation were found between the item anxious ($r=0.380, p<0.05$) and BSI scores. Statistically significant positive correlation were found between the item tension ($r=0.435, p<0.05$) and BSI scores. Statistically significant positive correlation was found between depressed mood ($r=0.368, p<0.05$) and age of onset. Statistically significant positive correlation was found between General Somatic Symptoms (Muscular) ($r=0.434, p<0.05$) and age of onset.

Conclusions: Suicidal patients were significantly more depressed than the non suicidal patients. Within the suicidal group it was noted that patients who were more anxious and had more tension had higher scores on the suicidal ideation scale. These two items may be taken as indicators of higher suicidal tendencies in patients of bipolar disorders. Also, somatic symptoms were related to duration of illness. Within the Non-suicidal group, age of onset was related to depressed mood and somatic symptoms.

Key words: Bipolar disorder, Suicidal Behavior, Comorbid Anxiety, Depressed mood.

Correspondence: Dr Manjunath R , E mail: docmatic@gmail.com

INTRODUCTION

The 1-year prevalence of bipolar disorder ranges between values of 0.01 and 1.7% with nearly 80% of them exhibiting suicidal behaviour.¹ Some researchers have found that Anxiety disorders like panic disorder were associated with suicidal ideation in bipolar subjects.² Comorbidities like panic disorder and OCD have been reported to be more common in patients of bipolar disorder.^{3,4}

Depressive and mixed phases have been found to have suicidal behaviour.⁵ Other researchers could not find evidence to support any association of Anxiety disorders with suicidal ideation in bipolar subjects.⁶ Anxiety symptoms alone like psychic anxiety, worry and panic attacks have been found to be predictive of suicide risk in patients with major affective disorders including 'manic-depressive illness'.^{7,8} Non specific anxiety and

anticipatory worry have also been shown to be associated with greater suicidal ideation and suicidal attempts.^{9,10} Subsyndromal anxiety in bipolar disorder needs to be assessed using a reliable scale in Indian population. So the present study was undertaken to assess comorbid anxiety in patients of bipolar disorder with and without suicidal behaviour and to study the correlation between anxiety and suicidal behavior in bipolar disorder.

MATERIAL AND METHODS

The study was a cross-sectional comparative hospital based study. It was conducted for two years between 2008 and 2010. Institutional Ethics Committee approval was taken and only those subjects who gave written informed consent were recruited for the study by the purposive sampling technique. The study was conducted at the Central Institute of Psychiatry, Ranchi. It is a tertiary referral center having a wide catchments area with bed strength of 673, and a postgraduate teaching hospital, which imparts training in psychiatry, clinical psychology, psychiatric social work and psychiatric nursing. The study sample consisted of 60 bipolar disorder patients diagnosed as per DSM IV-TR (American Psychiatric Association, 2000) criteria, 30 with suicidal ideation and 30 without suicidal ideation.

Inclusion criteria for group of bipolar disorder with suicidal ideation:

Diagnosis of bipolar disorder according to DSM IV-TR.

Patients with suicidal ideation (either in the present or past episodes) as assessed by Beck's scale for suicidal ideation. Patients aged between 18 and 50 years Bipolar disorders with duration of illness at-least 5 years. Patients giving written informed consent.

Inclusion criteria for group of bipolar disorder without suicidal ideation

Diagnosis of bipolar disorder according to DSM IV-TR. Patients without suicidal ideation (either in the present or past episodes) as assessed by Beck's scale for suicidal ideation. Patients aged between 18 and 50 years. Bipolar disorders with duration of

illness at-least 5 years. Patients giving written informed consent.

Exclusion criteria for both the groups

Comorbid psychiatric disorders other than anxiety disorders. Comorbid neurological illness and significant head injury. Comorbid substance dependence except nicotine and caffeine dependence. Major medical disorders including diabetes mellitus, hypertension, bronchial asthma and ischemic heart disease. Patients not willing to give consent.

Tools used:

1. Clinical data sheet.
2. Beck's Scale for Suicidal Ideation.¹¹
3. Hamilton Rating Scale for Depression.¹²
4. Young Mania Rating Scale.¹³
5. The Mini International Neuropsychiatric Interview. English Version 5.0.0 DSM- IV.¹⁴
6. Hamilton Rating Scale for Anxiety.¹⁵

Procedure for data collection

Patients coming to the Central Institute of Psychiatry were selected according to above mentioned inclusion and exclusion criteria. Mini International Neuro-psychiatric Interview was used to rule out comorbid conditions other than anxiety. The patients were assessed on Young Mania Rating Scale and Hamilton Rating Scale for Depression for the severity of mania and depression. They were also assessed on suicidal ideation scale for the present episode as well as past. Based on the score of suicidal ideation scale the patients were further divided into suicidal ideation group and non suicidal ideation group (patients responding positively in even one of the first five screening items or to the last two items were taken as belonging to the suicidal ideation group) during the period of remission that is when the score is ≤ 4 on Young Mania Rating Scale and ≤ 7 on Hamilton Rating Scale for Depression. They were further analysed on Hamilton Rating Scale for Anxiety. The data was analysed using SPSS version 16.0 for Windows.

RESULTS

Table 1: Comparison of HAM-A scores between Suicidal and Non-suicidal groups

Variable	Suicidal (N=30) Mean ± SD	Non-suicidal (N=30) Mean ± SD	t	df	p
Anxious	0.63±0.67	0.50±0.57	0.83	58	0.410
Tension	0.60±0.72	0.40±0.56	1.19	58	0.237
Fears	0.40±0.62	0.33±0.55	0.44	58	0.661
Insomnia	0.00	0.03±0.18			
Difficulties in concentration and memory	0.03±0.18	0.16±0.46	-1.47	58	0.146
Depressed mood	0.53±0.63	0.10±0.30	3.40	58	0.001***
General Somatic Symptoms (Muscular)	0.03±0.18	0.03±0.18	0.00	58	1.000
General Somatic Symptoms (Sensory)	0.00	0.00			
Cardiovascular symptoms	0.03±0.18	0.00			
Respiratory symptoms	0.00	0.00			
Gastro-intestinal symptoms	0.03±0.18	0.00			
Genitourinary symptoms	0.03±0.18	0.07±0.25	-0.58	58	0.561
Autonomic symptoms	0.00	0.33±0.18			
Behavior at interview	0.23±0.50	0.13±0.43	0.82	58	0.414
Total score	2.56±2.54	1.8±1.68	1.38	58	0.174

*p < 0.05, **p < 0.01 & ***p < 0.001 (2 tailed).

Table 1 shows the comparison of Hamilton Anxiety Scale scores between the Suicidal and Non-suicidal groups. It was observed that except depressed mood no statistical significance could be observed in any other items of the Hamilton Anxiety scale. It was observed that there were no scores obtained on Insomnia, General Somatic Symptoms (Sensory), Respiratory symptoms and Autonomic symptoms in the Suicidal group. The suicidal group was significantly more depressed than the Non-suicidal group with p < 0.001.

Table 2: Correlation of Hamilton Anxiety Scale scores with Socio-demographic and clinical variables in Suicidal group

Variable	Anxious (r)	Tension (r)	Fears (r)	Difficulties in concentration and memory (r)	Depressed mood (r)	General Somatic Symptoms (Muscular) (r)	Cardiovascular symptoms (r)	Gastro-intestinal symptoms (r)	Genitourinary symptoms (r)	Behavior at interview (r)	Total score (r)
BSI*	0.380*	0.435*	0.068	-0.066	0.279	-0.066	0.100	0.000	-0.066	0.324	0.353
Age	0.038	0.293	0.237	0.079	0.019	0.360	0.062	0.172	0.009	0.046	0.187
Education	0.245	-0.083	0.183	0.256	0.160	0.256	0.045	0.256	0.256	0.068	0.215
Income	0.179	0.099	0.116	-0.131	-0.038	-0.131	-0.131	-0.131	0.263	-0.048	0.066
Duration of illness	0.089	0.271	0.221	0.016	0.140	0.481**	-0.051	0.115	-0.184	0.027	0.222
Age of onset	-0.028	0.164	0.135	0.104	-0.110	0.032	-0.039	0.140	0.211	0.087	0.060

*p < 0.05, **p < 0.01 & ***p < 0.001 (2 tailed)

@BSI – Scores obtained on Beck’s scale for suicidal ideation.

Table 2 shows the correlation between the Hamilton Anxiety Scale scores and Beck’s scale for suicidal ideation scores, age, education, and income, duration of illness and age of onset in the suicidal group. Statistically significant positive correlation was found between General Somatic Symptoms (Muscular) item and duration of illness (r=0.481, p<0.01). Statistically significant positive correlation were found between the item anxious (r=0.380, p<0.05) and BSI scores. Statistically significant positive correlation were found between the item tension (r=0.435, p<0.05) and BSI scores.

Table 3: Correlation of HAM-A scores with Socio-demographic and clinical variables in Non-suicidal group

Variable	Anxious (r)	Tension (r)	Fears (r)	Insomnia (r)	Difficulties in concentration and memory (r)	Depressed mood (r)	General Somatic Symptoms (Muscular) (r)	Genitourinary symptoms (r)	Autonomic symptoms (r)	Behavior at interview (r)	Total score (r)
Age	-0.233	-0.180	0.060	-0.075	0.035	0.245	0.290	0.103	-0.123	0.008	-0.038
Education	0.159	0.015	-0.235	0.010	-0.314	-0.028	0.049	0.125	-0.105	0.082	-0.073
Income	0.134	-0.027	-0.093	-0.112	-0.055	-0.050	-0.112	-0.161	-0.112	-0.188	-0.109
Duration of illness	0.006	-0.348	-0.020	0.186	-0.167	0.177	-0.205	-0.193	-0.205	0.029	-0.244
Age of onset	-0.246	0.051	0.065	-0.203	0.141	0.368*	0.434*	0.236	0.017	-0.012	0.119

*p < 0.05, **p < 0.01 & ***p < 0.001 (2 tailed).

Table 3 shows the correlation between the Hamilton Anxiety Scale scores and age, education, income, duration of illness and age of onset in the Non-suicidal group. Age, education, income and duration of illness did not have any statistically significant correlation with any of the

items in Hamilton Anxiety Scale. Statistically significant positive correlation was found between depressed mood ($r=0.368$, $p < 0.05$) and age of onset. Statistically significant positive correlation was found between General Somatic Symptoms (Muscular) ($r=0.434$, $p < 0.05$) and age of onset.

DISCUSSION

It was observed in our study that the suicidal group had a significantly higher score of 'depressed mood' on Hamilton Anxiety scale than the non suicidal group. This finding was similar to that of other researchers.^{5,16,17} We observed a statistically significant positive correlation of the items 'anxious' ($r=0.38$, $p < 0.05$) on the Hamilton anxiety scale with the suicidal ideation scores in the suicidal group. This can be seen to be similar to the finding of other researchers who noted anxiety to be a risk factor in bipolar disorder with suicidal behaviors.^{10,18} Also a statistically significant positive correlation of the items 'Tension' ($r=0.435$, $p < 0.05$) on the Hamilton anxiety scale were observed with the scores obtained on the Beck's scale for suicidal ideation in the suicidal group. Statistically significant positive correlation of the item 'General somatic symptoms (Muscular)' ($r=0.48$, $p < 0.01$) on the Hamilton anxiety scale was observed with the duration of the illness in the suicidal group. Similar findings were found in another study with general anxiety symptoms, anticipatory anxiety being associated with suicidal ideation in patients of anxiety disorder.¹⁹

On the Hamilton anxiety scale the items 'depressed mood' ($r = 0.368$, $p < 0.05$) and 'General somatic symptoms (Muscular)' ($r = 0.434$, $p < 0.05$) were observed to have statistically significant positive correlations with age of onset of the illness in the non suicidal group. Comparable findings were found in a study with clinically stable bipolar disorder subjects who continued to present with symptoms such as Depressed Mood, Somatic Anxiety and Gastrointestinal and Somatic Symptoms.²⁰

It was observed that suicidal patients were significantly more depressed than the non

suicidal patients. Further within the suicidal group it was noted that patients who were more anxious and had more tension had higher scores on the suicidal ideation scale. Therefore, these two items may be taken as indicators of higher suicidal tendencies in patients of bipolar disorders. Further research though is needed with a larger number of participants to confirm or refute such an assumption before generalizing it.

CONCLUSIONS

The age and sex in the current study were matched. Patients in the suicidal group were significantly more depressed than the non suicidal group as assessed on the Hamilton anxiety scale. But no difference was observed on other items on the Hamilton anxiety scale like 'anxious', 'tension', 'fears', 'insomnia', 'difficulties in concentration and memory', 'general somatic symptoms (muscular)', 'general somatic symptoms (sensory)', 'cardiovascular symptoms', 'respiratory symptoms', 'gastro-intestinal symptoms', 'genitourinary symptoms', 'autonomic symptoms' and 'behavior at interview'. The items 'anxious' and 'tension' on the Hamilton anxiety scale were found to correlate significantly with scores obtained on the suicidal ideation scale. Further, duration of illness correlated significantly with the 'General somatic symptoms (muscular)'.

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