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Course and ClinicalProfile of Patients with Bipolar Affective Disorder.

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I. Introduction

Bipolar affective disorder (BPAD) is a recurrent chronic disordercharacterized by fluctuations in mood state and energy. It affects more than 1% of the world's population irrespective of nationality, ethnic origin, or socioeconomic status.[1] There were 32.7 million cases of bipolar disorder globally in 1990 and 48.8 million in 2013; equivalent to a 49.1% increase in prevalent cases, all accounted for by population increase and ageing.[2]

Bipolar disorder is one of the main causes of disability among young people, leading to cognitive andfunctional impairment and raised mortality.[1] Bipolar disorder accounted for 9.9 million Disability Adjusted life Years (DALYs) in 2013, explaining 0.4% of total DALYs and 1.3% of total Years lost due to Disability (YLDs).[2]

BPAD has its onset in the young adult years, treatment seeking is often delayedand it has the highest suicide attempt rate among psychiatric disorders.[3] [4] Half of those who died by suicide had at least one diagnosed mental health condition in the year before death, and most mental health conditions were associated with an increased risk of suicide.[5]This is a major public health problem.[6]

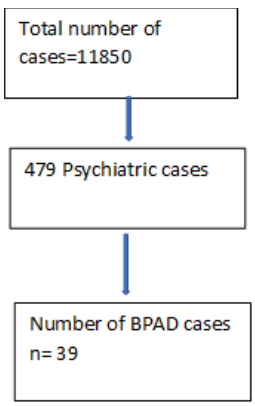
Understanding the clinical course and its variables helps to know the onset, progression of illness, suicide risk and there by treating the condition and preventing suicide effectively. This study aims to understand clinical profile of patients with bipolar affective disorder.

II. Material and Methods

The study is conducted in Attavar hospital, Kasturba Medical College, in Southern India. Itis 600 bedded,Multi-speciality, tertiary care teaching hospital. Data from august 2000 to august 2001(One year)is collected from Medical records department of the hospital.Case files with diagnosis of Bipolar affective disorder based on ICD 10 were obtained. Clinical variables of gender, age, age of onset, type and duration of episodes, diagnosis, differential diagnosis, co-morbidity, treatment received and adherence were recorded.The association of categorical values was studied using chi-square test. The difference in means were compared using t-test and the threshold for statistical significance was standard 0.05.

III. Results

In a general hospital setting the proportion of patients with Psychiatric illness in the study year (august 2000 to 2001)is4% (479) of 11850 cases.(Flow chart 1).



Flow chart 1

39 patients with diagnosis based on ICD 10 of BPAD were included in the study. The most common psychiatric disorder is Non-Affective psychosis (34%) followed by Depression (30%), and alcohol dependence (11%). (Figure 1)

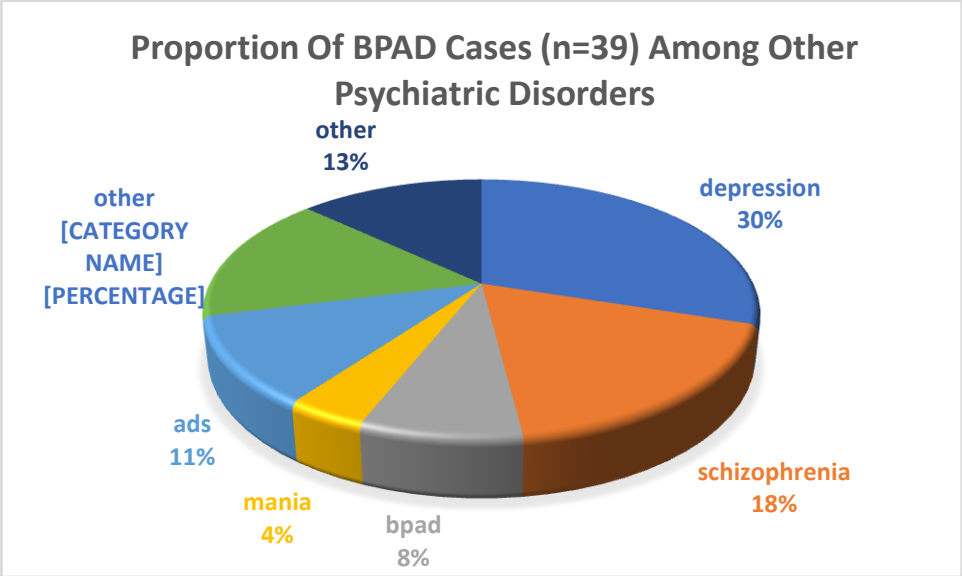


Figure 1

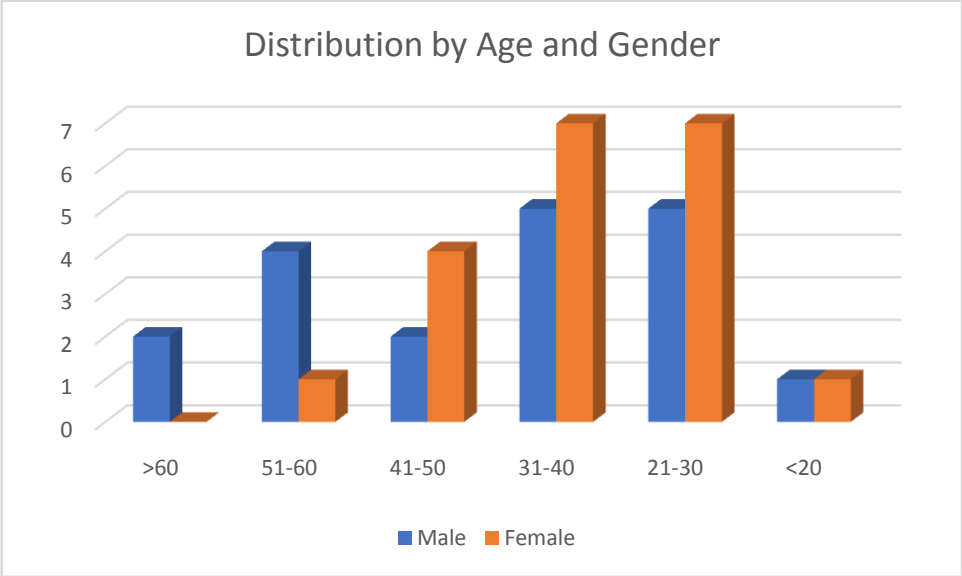


Figure 2 Distribution by age and Gender

Table 1 Gender and Age of Onset

	Age of Onset * (years)			Total
Gender	15-25	26-35	36-45	
Male	1	10	8	19
Female	8	7	5	20
Total	9	17	13	39

*P= 0.036

Female(n=20) to Male(n=19) ratio is 1.05: 1.The mean age of the study group is 27.2.The age of onset is found to be significantly lower in males than in females(p=0.036) (table1)

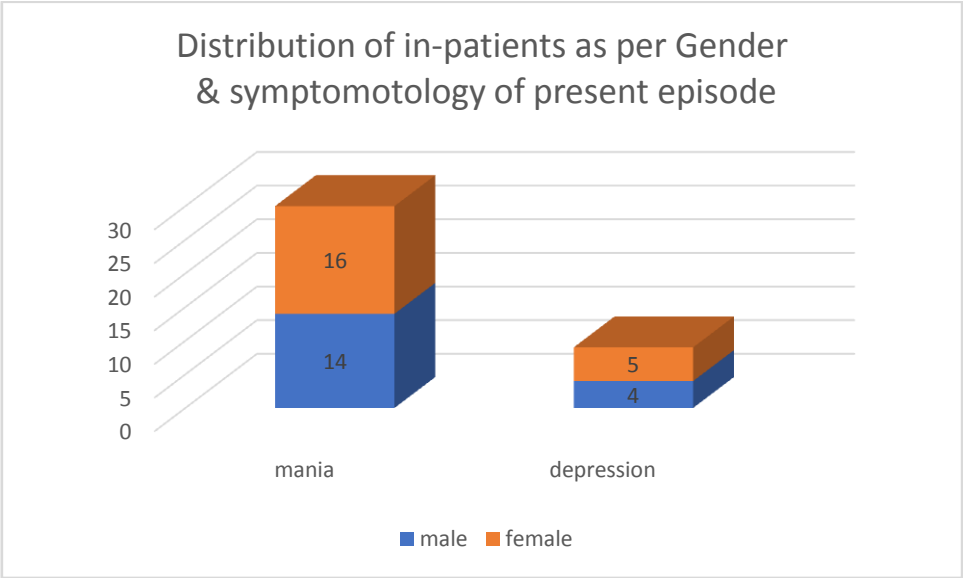


Figure 3

Table 2. Gender and duration Of Present Episode

Duration (days) **	1-10	11-20	21-30	Total
Male	1	8	10	19
Female	8	5	7	20
Total	9	13	17	39

**P =0.036

Most admission of bipolar affective disorder are in a manic episode(75%) in comparison to depressive episodes(25%).The female to male ratio in manic episode is 1.1: 1 and in depressive episode is 1.25: 1.(figure3).Male have been found to have significantly longer duration of episode than female (p=0.036)(Table2)

Table 3. Distribution of Patients with Suicidal Ideation and attempts, family history.

Clinical variable(n=39)	Present(%)	Absent(%)
Suicidal ideas	6(15)	33(85)
Suicidal attempts	4(10)	35(90)
Family history of Psychiatric illness	10(26)	29(74)

Suicidal ideas are present in 15% of the study sample and 10% had made Suicidal attempts. There is family history of psychiatric illness in 26% of the study sample. (Table 3)

Table 4 Age of Onset and Duration of episode

	Duration in days			Total
Age of Onset (Years)	1-10	11-20	21-30	
15-25	9	0	0	9
26-35	0	0	17	17
36-45	0	13	0	13
	9	13	17	39

#p=0.000

The younger age of onset has significantly correlated with longer duration of the episode. (p=0.000)(Table 4)

Table 4 Diagnosis and Co-morbidity

Precipitating factors for the episode(%)	
-death in family	4(18)
-problems in family	4(10)
-attending a marriage(Sleep deprivation, exhaustion)	1(3)
-financial problems	2(5)
-Absent	25(64)
Diagnosis offered at first clinical presentation	
-BPAD	25(64)

-Schizophrenia	6(15)
-Depression	6(15)
-Unipolar Mania	1(3)
-Acute Psychosis	1(3)
Differential Diagnosis(d/d) offered for BPAD	
-Schizophrenia	5(13)
-Unipolar Mania	1(3)
-Acute Psychosis	1(3)
-No d/d	32(81)
Co-morbidity	
-alcohol dependence	5(13)
-benign prostatic hypertrophy	2(5)
-Diabetes	2(5)
-Hypertension	1(3)
-bronchial asthma	1(3)
-rheumatoid arthritis	1(3)
-Fibroid	1(3)
-Absent	26(67)

Precipitating factor for the onset of episode is absent in most cases (64%).First diagnosis of BPAD was made in 64% of cases. 12% of cases which are diagnosed schizophrenia and depression were revised subsequently after clarifying the history. The commonest differential diagnosis is schizophrenia. Medical co-morbidity was absent in 66% of cases and the most common psychiatric morbidity is Alcohol dependence syndrome (13%) and physical condition was benign prostate hypertrophy (5%). (Table 4)

Table 5 Treatment variables

Total duration of treatment (Months) (n=39)	(%)
0-6	10(26)
07-12	8(21)
13-18	1(03)
19-24	5(13)
25-30	(0)
31-36	3(8)
37-42	(0)
43-48	5(13)
49-54	(0)
55-60	0)
>60	6(16)
Period of discontinuity (Months)	
0-6	8(21)
07-12	3(8)
13-18	1(3)
not known	27(68)

Treatment	
Mood stabilizers:	
-lithium	16(41)
-valproate	19(7)
-carbamazepine	2(.7)
Antipsychotics	
-haloperidol	21(53)
- Risperidone	6(15)
-olanzapine	8(3)
-others	4(1)
Anti-depressants	
-sertraline	2(5)
-TCAs	7(18)
Benzodiazepines	31(79)
ECT (Given)	10(26)

Close to 50 % are compliant for one year after treatment and only 16% are adherent to medication at the end of 5 years. The common anti-psychotic is haloperidol followed by risperidone. Valproate was most common mood stabilizer followed by lithium. Anti-depressants augmentation to mood stabilizer is used in a few patients(20%).

IV. Discussion

Bipolar affective disorder has its onset mostly in the young adult years withmore than 75% cases occur before the age of 30.[7] The mean age of the study group is 27.2 years, in contrast to 24.8 in Indian population by Karthick et al.[8] The mean age of onset of disorder was 21.2 years, this is close to a study done in Singapore by Vaingankar et al , where the age of onset of life time mental disorder is 22.[4]Early age of onset was found to be associated with longer delay to treatment, greater severity of depression and higher levels of comorbid anxiety and substance use.[9]In contrast our study finds that patients have significantly more manic episodes than depressive episodes. This finding is unique to the tropical countries where manic episodes occur more often than depressive episodes.[8,10] Only one(3%) patient was diagnosed to have unipolar mania in our study. This is stark contrast from Indian and other studies where the prevalence is found to be higher.[8,11]Men had significantly longer duration of episodes than women($p=0.036$) .This finding, unique to this study where similar result is not seen in a study from Indian subcontinent by Karthick et al.[8]In our study younger age onset was associated with significantly longer duration of episode.($p=0.000$)The diagnosis of BPAD was made on the first contact in more than 60% of cases, with the first differential diagnosis of Schizophrenia.

Co-morbidity

Psychiatric co-morbidity in bipolar disorder ranges from 57.3% to 74.3%, whereas medical co-morbidity varies from 2.7-70%. [12]Theoccurrence of co-morbidity is low in our study. This is line with Indian studies in comparison where the co-morbid illness is found to be less than western studies. The most common psychiatric co-morbidity is alcohol dependence and benign prostate was the common physical illness.Presence of co-morbid alcohol dependence as seen in this study increases the risk of suicide behavior.[3,6]

Suicide risk

Bipolar disorder (BD) is a mental health condition that has one of the greatest risk of completed suicide .(Plans L) and is more than Major Depressive Disorder(MDD).[13]In a review by latalova et al, it is estimated that 25% to 50% of patients with bipolar disorder will attempt suicide at least once over their lifetime, and that 8% to 19% will complete suicide.[6] In our study the suicide ideation was present in 15% and 10 % had attempted suicide. There were no completed suicides in the study. However, it must be noted that the data on completed suicide may not have been recorded in the case file.

Treatment and Adherence

In our study anti psychotics and mood stabilizers were a part of treatment protocol. Lithium is second most mood stabilizer closely after Valproate. Lithium continues to be gold standard for mood stabilizers and also has significant suicide prevention properties.[6]Higher medication compliance reduces the likelihood of suicidal attempt in these patients.[3]The Use of Electro Convulsive Therapy(ECT) as an effective first line measure in severe, agitated , suicidal patients and its safety [14,15]has been well established and in this study more than 25 % of the subjects have benefited from ECT treatment.

Among the non-pharmacological measures of treatment, psychoeducation is part of treatment protocol in the hospital where the study is conducted. Psycho-education for bipolar disorder reduces the risk of mood episodes,the number of suicide attempts, completions, and inpatient care also when implemented in routine clinical practice.[6,16].Cognitive Behaviour therapy was offered only when indicated.The evidence supports the efficacy of cognitive behavioural therapy (CBT), in combination with pharmacological treatment for the prevention of relapse and of suicidal behaviour.

Maintenance therapy is need in most cases of BPAD, which is in years and sometimes through the life. Adherence rates in our study are to up to 50% at the end of one year and upto 16% at the end of 5 years.Poor medication adherence is a pervasive problem that causes disability and suffering as well as extensive financial costs among individuals with bipolar disorder (BD). Barriers to adherence are numerous and cross multiple levels, including factors related to bipolar pathology and those unique to an individual's circumstances like logistic reasons and ignorance of side-effects. [17,18]

While improved technologies and electronic measures have been suggested and being used to improve adherence,[19]Vast years of clinical experience, of a habit of pre-agreed date of review with the individual patient and family and primary treating psychiatrist has long been established as gold standard to ensure adherence to treatment.

Limitations: A sample size has not allowed to look statistically significant associations between various variables. Retrospective nature of the study had its limitations because some of the required data was not recorded in the case files.

V. Conclusion

Early identification,precise diagnosis, andevidenced basedtailor-made intervention, understanding specific risk factors helps ensure better adherence.Suicide risk is high in bipolar disorders, psychoeducational and CBT methods have been shown to be effective in decreasing suicide risk.

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