

## FOUR YEAR FOLLOW-UP OF FIRST EPISODE MANIC PATIENTS

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### ABSTRACT

51 patients who were admitted for their first manic episode were followed up for 4 years after discharge from the hospital. 32 (62.7%) patients came for regular follow-ups whereas 19 (37.3%) patients did not come for any follow up. 19 (59.4%) patients out of the 32 patients had subsequent recurrences. 8 (25.0%) patients had a single recurrence only, whereas 11 (34.4%) patients had multiple recurrences. In total, 31 (74.19%) recurrences occurred in 4 years, out of which 23 (25.81%) recurrences were for mania and only 8 for depression. 46.88% patients had relapsed at the end of the first year and by the third year all 19 (59.4%) patients had relapsed. The chances of having a depressive episode was highest in the first six months after recovery from manic episode. Patients with a family history of bipolar illness had a more deleterious course. Poor drug compliance was a factor associated with greater relapse rates. Amongst the patients receiving regular medication, the patients who were on lithium had the best outcome. 48.8% patients had subsequent admissions in the four year follow up. Patients with late age of onset and substance abuse had required greater number of admissions.

*Key Words* : Manic episode, recurrence, depressive episode, follow-up and outcome

Bipolar affective illness runs an episodic course characterised by periods of illness episode alternating with periods of normal functioning. Since the introduction of lithium as a prophylactic agent for bipolar disorder in the 1960s, many studies have attempted to identify the course and outcome as well as the predictors of outcome. In this study we followed up patients who were admitted for their first manic episode. This method of sample selection ensured that we were able to identify patients at an early and uniform point, which is important in such studies, where we want to understand the course and outcome of a particular illness (Welner et al., 1977; Bland & Orn, 1982; Keller et al., 1993; Tohen et al., 1990 b).

### MATERIAL AND METHOD

51 first episode manic patients who were admitted in the Central Institute of Psychiatry, Ranchi, over a 3 month period (28th Feb. 1991 to 31st May 1991) and who fulfilled the DSM III-R (A.P.A., 1987) criteria for mania, were included in the study.

The exclusion criteria were, any history of organicity; any past history of manic or depressive episode, and patients with any psychiatric comorbidity except substance abuse.

The patients were initially evaluated on the Comprehensive Psychopathological Rating Scale (C.P.R.S.) (Asberg et al., 1978). After the discharge of the patients from the hospital, they

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were interviewed at each follow-up by either a consultant or resident doctor. The details of the interview were recorded in the patient's file. The statistical analysis was done using chi-square test with Yates correction, and Fisher's test, wherever necessary.

### RESULTS

Out of the original sample of 51 patients, only 32 (62.7%) patients came for regular follow-ups, while 19 (37.3%) patients did not turn up for subsequent follow-ups after discharge.

The sample consisted of 28 (87.5%) males and 4 (12.5%) females. 25 (78.1%) of the patients were married, whereas 7 (21.9%) patients were still single. 7 (21.9%) patients had an age of onset below 20 years, 22 (68.8%) patients had an age of onset between 21 to 39 years and 3 (9.4%) patients had an age of onset above 40 years. The mean age of illness onset was 28±9.07 years.

Family history of bipolar disorder was present in 8 (25.0%) patients. 12 (37.5%) patients had history of alcohol or cannabis abuse or both. In the initial admissions in the hospital, psychotic features were present in 22 (68.8%) patients. At the time of discharge 7 (21.9%) patients had remained symptomatic.

During the follow-up, 13 (40.6%) patients were on lithium carbonate, 17 (53.1%) patients were on other drugs (i.e. carbamazepine, sodium valproate or antipsychotics) and 2 (6.3%) patients were on no drugs. The drug compliance was good in 19 (59.4%) patients whereas it was poor in 11 (34.4%) patients.

19 (59.4%) patients had subsequent recurrences. 5 (15.65%) patient had only a single manic recurrence and 3 (9.4%) patients had only a single depressive recurrence. 4 (12.5%) patients had one manic and one depressive recurrence. 1 (3.13%) patient had two manic along with a single depressive recurrence, and 6 (18.8%) patients had 2 manic recurrences without any depressive recurrence. Hence 8 (25.0%) patients had a single

recurrence while 11 (34.4%) patients had more than one recurrence. In total, the patients had 31 recurrences in 4 years out of which 23 recurrences were for mania and 8 recurrences for depression. In the first year of follow-up 15 recurrences occurred, out of which 8 were for mania and 7 for depression. However in the first 6 months of follow-up 6 recurrences had occurred and all were depressive recurrences. In the second year 4 recurrences occurred out of which 3 were for mania and 1 for depression. In the third year 10 recurrences occurred and all were for mania. In the fourth year only 2 recurrences occurred and both were for mania.

The recurrence rates were compared between males and females, but no significant difference was found. Similarly the recurrence rates were compared with the age of onset. In patients with age of onset before 20 years and age of onset between 21 to 39 years, no significant differences were found. In the 3 patients having an onset after 40 years, all had recurrences. However this was not significant (Fisher's two tail test;  $p = 0.25$ ).

The recurrence rates were compared in patients who had psychotic symptoms and who did not, during initial admission and also in symptomatic and asymptomatic patients, but no statistically significant differences were found.

In the patients with history of alcohol or cannabis abuse, 9 (75%) had subsequent recurrences compared to 10 (50%) in patients who had no such history (Yates;  $p = 0.31$ ).

Among the patients with a history of

TABLE 1  
FAMILY HISTORY OF BIPOLAR ILLNESS AND RECURRENCES

Family history	One recurrence	More than one recurrence	No recurrence
Present - 8	1	6	1
Absent - 24	7	5	12

$\chi^2 = 7.86$ , d.f. = 2,  $p < 0.05$

bipolar disorder 7 (87.5%) had recurrences compared to 12 (50%) in the patients without such history (Yates;  $p = 0.14$ ). Further, 6 (75%) patients with positive family history had more than 1 recurrence compared to 5 (20.83%) patients with negative history, which was statistically significant (Table 1).

**TABLE 2**  
**RECURRENCE BY VARIOUS TYPES OF**  
**MEDICATION**

Medication	Recurrence	No Recurrence
Lithium(n=13)	4	9
Carbamazepine/ Sodiumvalproate/ Antipsychotics (n =17)	13	4
No drugs (n=2)	2	0

$\chi^2 = 7.84$ , d.f.=2,  $p < 0.05$

Amongst the patients on lithium carbonate, 4 (30.77%) had a recurrence compared to 13 (70.65%) who were on other drugs and 2 (100%) patients who were on no drugs. This was found to be statistically significant (Table 2).

**TABLE 3**  
**RECURRENCE BY COMPLIANCE**

Compliance	Recurrence	No recurrence
Good (N=19)	6	13
Poor (N= 11)	11	0.
No drugs (N=2)	2	0

$\chi^2 = 14.98$ , d.f.=2,  $p < 0.001$

In the patients who had good drug

compliance 6 (31.58%) had further recurrences compared to 11 (100%) in patients with poor compliance. This too was statistically significant, (Table 3).

**TABLE 4**  
**HISTORY OF SUBSTANCE ABUSE BY**  
**READMISSIONS**

History of substance abuse	1 readmission	> 1 readmission	No readmission
Present(n= 12)	5	3	4
Absent (n=20)	5	1	14

$\chi^2 = 4.86$ , d.f. =2, N.S.

In the follow-up, 10 (31.3%) patients were readmitted once, 4 (12.5%) patients were readmitted two or more times while 18 (56.3%) patients did not require any admission. Interestingly, there were only 2 admissions for depression during follow-up while the rest were for mania. It was found that 3 (100%) patients with an age of onset after 40 years required subsequent admissions compared to 11 (61.11%) patients having an age of onset less than 40 years (Fisher's two tail test;  $p = 0.07$ ). In the patients with history of alcohol or cannabis abuse 5 (41.67%) had 1 readmission and 3 (25%) had more than 1 admission compared to 5 (25%) and 1 (5%) respectively, in patients who did not have such a history. This finding was not significant (Table 4).

## DISCUSSION

There was an overrepresentation of males in our sample which was similar to the findings of other Indian researchers (Chatterjee & Kulhara, 1989; Khanna *et al.*, 1992). However, it would be of interest to note that Perris (1969) had observed that in the early age group if the disease starts as mania, the sex of the patients is more likely to be male. May be apart from the sex bias in hospital

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samples, this factor could also, in part, be responsible for the male preponderance in our sample. The mean age of illness onset was found to be  $28.07 \pm 9.07$  which was comparable to the findings of Angst et al. (1973), Joyce (1984), Chatterje & Kulhara (1989), Tohen et al., (1990a,b) and Khanna et al., (1992). The maximum number of patients had an age of onset between 21 to 39 years, which was similar to the findings of Wertham (1929), who had noted the modal age of onset for mania to be between 20 to 25 years of age. The greater number of married patients in our sample could merely be a reflection of the fact that maximum number of patients were in the marriageable age-group.

An interesting observation made by us was that in the first 6 months there were 6 depressive recurrences but no manic recurrence. Tohen et al. (1990a) in a follow-up study of 75 patients had observed 36% relapse in the first 6 months, out of which 24% had relapsed into depression. In another study of first episode manic patients by the same authors (Tohen et al., 1990b), 20% of their patients had relapsed in the first 6 months, and all of them had depression which was similar to our findings. In our sample 19 (59.4%) patients had further recurrences. In the first year 14 (43.75%) patients had relapsed, by the second year 15 (46.88%) patients had relapsed and by the third year all 19 (59.4%) patients had relapsed. The relapse rates in our study was similar to the rates of 40% at the end of 1.7 years observed by Harrow et al. (1990) and 42% at the end of 2 years observed by Mander (1986). The total number of manic relapses were 74.19% which was almost similar to the 68% relapse rate reported by Mander (1986).

We observed that the patients with a family history of bipolar illness had more recurrences than patients without such history. This is a finding consistent with the findings of Mendlewicz et al. (1972) that patients with a positive history run a more severe course of illness. Another significant finding was that

patients on lithium carbonate had the best course and outcome. Only 30.77% patients had further relapses. This finding is comparable to the findings of Prien et al. (1973 a,b), Stallone et al. (1973) and Fieve et al. (1976). When drug compliance was compared it was found that out of the 11 patients with poor drug compliance, all had a relapse. Poor drug compliance is an issue of concern not only in our setup but even in the west (Guscott & Taylor, 1994) and this issue needs to be addressed to in our day-to-day clinical work.

In the follow-up period, 48.8% patients required subsequent admissions. All admissions were for mania, except 2 admissions which were for depression, which was similar to the trend observed elsewhere (Winokur et al. 1969; Angst 1978; Roy-Byrne et al., 1985). The two significant findings regarding readmission were that all the patients with an age of onset after 40 years had required further admissions during the follow-up. In the literature there is evidence to suggest that late age of onset predicts a deleterious course of illness (Wertham, 1929; Roth, 1955; Cutler & Post, 1982). However, as there were only 3 patients with a late age of onset, this finding should be viewed with caution. The second finding, that the patients with history of alcohol and cannabis abuse had required more admissions is of clinical importance. In our study we did not find a greater number of relapses in such patients, but increased number of admissions, although comparing with the other group it was insignificant.

There are certain limitations in our study, like we did not interview the patients using any standardised structured interview schedule during follow-ups. Hypomanic relapses were not separated from manic relapses. 19 patients did not turn up for follow-up, hence the attrition rate was quite high. As this was naturalistic study, hence the treatment was a major uncontrolled variable. However, inspite of the various limitations, this study has given us few insights into the clinical course and outcome of bipolar illness in the Indian context.

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