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EVOLUTION OF SYMPTOMS OF MANIA

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ABSTRACT

Mania has been known to result in undesirable consequences like illegitimate pregnancies, financial losses and ruined carriers. An early identification of the syndrome should result in early diagnosis and treatment and limit these undesirable consequences. This study was thus carried out to study the evolution of the manic episode and the factors influencing it. The guardians of 98 consecutive drug free manic patients were given a symptom check list and asked to rate the symptoms in the order of appearance and the duration of each symptom. It was found that there were no consistent patterns of evolution. The median duration of evolution was 45 days. Females and patients with life events had a shorter evolution period.

Key words : Mania, evolution, prodrome, duration, gender difference

Recent studies have concentrated on identifying symptoms of mania early in the evolution of the episode (Molnar et al.,1988; Smith and Tarrier,1992; Chakrabarti,1992; Keitner et al.,1996). Social workers have been engaged to detect early relapses and refer such patients (Jacobson,1965) to minimise the undesirable consequences like ruined careers, financial losses, illegitimate pregnancies, impairment in relationships (Jacobson,1965) and unnecessary restraint (Kumar et al.,1999). However, the role of the illness and sociodemographic variables in the evolution of the manic episode has been sadly neglected.

These studies have used different terms like prodrome, hospital latency and illness onset with different meanings. Strictly speaking the prodrome of mania would be the time interval from the onset of first symptom to the point of time when a diagnosis of mania could be made. An evolution of mania would be the interval of time from the appearance of the first symptom to the point after which there was no change in the clinical picture in terms of severity and symptoms.

Studies have equated hospital latency i.e. the time of onset of the first symptom to the point of hospitalization as that of evolution (Francis and Gasparo,1994; Winokur,1976; Sclare and Creed,1990) or prodrome (Chakrabarti,1992). Molnar et al. (1988) defined prodorme as the period of onset of first symptom to maximum intensity; a definition more consistent with the concept of evolution while Keitner et al. (1996) asked the patients and guardians to list symptoms before the onset of the manic episode, a concept more consistent with that of prodrome.

There have been many methods of eliciting symptoms during evolution. Studies have asked the patients to report symptoms of prior episodes (Molnar et al.,1988; Keitner et al.,1996) or have used a symptom checklist (Smith and Tarrier, 1992; Chakrabarti,1992). Other methods include dating the symptoms on the PSE examination (Sclare and Creed, 1990) and longitudinal BPRS administration (Altman et al.,1992).

Use of a symptom checklist might facilitate recall by the informant but would result in loss of symptoms not included in the checklist. Asking the informants to recall the symptoms would result in loss of some symptoms due to the time lag.

Further the data generated would be enormous and it would be quite difficult to sort it into categories. A better design would be to use a symptom check list to facilitate recall along with an open column for unlisted symptoms which could then be easily slotted.

Another issue comprises the source of information. The study by Chakrabarti (1992) relied exclusively on the guardians account for the index episode. The studies of Molnar et al. (1988), Sclare and Creed (1990) and Keitner et al. (1996) collaborated the information of the patients by a relative for prior episodes while in the study of Smith and Tarrier (1992) patients were interviewed. Though Smith and Tarrier (1992) report that patients retained insight till a point after the onset of illness, the descriptions of Kraepelin (1921) and Jacobson (1965) point out that insight is lost from the earliest. Insight, if present at all, is transient and manic patients are notoriously refractory to self-examination and treatment (Akiskal,2000). Thus even if the patient may be able to recollect retrospectively, it becomes incumbent on the guardians to identify an impending relapse and bring the patient to the psychiatric facility.

The presence of prophylactic drugs could colour the development of the episode and this aspect is not mentioned in most of the studies (Molnar et al.,1988; Chakrabarti,1992; Francis and Gasparo,1994; Keitner et al.,1996) while the patients of Sclare and Creed (1990) and Altman et al. (1992) were receiving drugs. Thus it is necessary for the patients to be drug free for the index episode for which they are evaluated so that the assessment of evolution is accurate.

This study was thus carried out to study the evolution of the manic episode in drug free patients using a symptom check list with guardians as the source of information and to study the factors influencing the evolution of the manic episode.

MATERIAL AND METHOD

This study was conducted in the Out Patient Department (OPD) of Central Institute of Psychiatry (CIP), Ranchi. This is a 643 bedded tertiary referral centre catering exclusively to psychiatric patients with a catchment area of whole of Eastern India.

The sample for the present study was drawn from all patients utilizing the OPD services for the first time. The patients were selected for the study if they received a diagnosis of either Manic Episode or Bipolar Affective Disorder current episode mania as per the criteria laid down by the World Health Organizations Diagnostic Criteria for Research (WHO,1993). The accompanying guardian should also have been staying with the patient from at least two weeks before the appearance of the first symptom till the point of contact at CIP OPD.

The patients were excluded from the study if a diagnosis of Organic Manic disorder (F 06.30), Organic Bipolar disorder (F 06.31) or mental and behavioural disorders due to psychoactive substance use, psychotic disorder, predominantly manic type (F 1x.55) was more appropriate according to DCR criteria (WHO, 1993).

The patient should have been completely drug free including mood stabilizers for at least six months before the appearance of the first symptom in the patient and there should have been no history of treatment by psychotropic drugs for the index episode. Duration of current episode more than six months also led to the exclusion of the patient from the study as subjective recall may be doubtful above that period.

All consecutive patients fulfilling the above inclusion and exclusion criteria were taken up for the study and an informed consent taken. A symptom check list was then given to the accompanying guardian who was asked to tick the symptoms present in the patient. He was then asked to record for how long those symptoms had been present in the patient. This symptom check list (available from first author) was self generated in consultation with the consultants of the institute and included all usual manic presentations. It contained an item 'others' for unlisted symptom. For a symptom to be rated as present in the check list, it should have been a deviation from the patients usual behaviour and should have been present for at least seven days

at a stretch or continually if contact was less than seven days after the appearance of the symptom. Life events were recorded using the presumptive stressful life events scale (Singh et al.,1984) for those life events which had occurred in the six months preceding the appearance of the first symptom. The severity of the index episode was rated on the mania rating scale (Young et al.,1978).

For the purpose of analysis the following concepts were defined :

1. Period of evolution : The difference in days between the appearance of first symptom and the last symptom was taken as the period of evolution.
2. Remaining period : This was the period after the appearance of the last symptom and the point of contact.
3. Completed evolution : The evolution was said to be complete if :

(a) Period of evolution was zero days
(b) Remaining period was more than the period of evolution
(c) The remaining period was less than the period of evolution but was more than the time interval of the appearance of the last two symptom clusters.

RESULTS

The total sample size was 98 and consisted of 81 males and 17 females. 35 patients were married. 87 were hindus and the rest belonged to other religions. 57 patients had no history of consumption of psychoactive substance with a potential for abuse. 23 patients were illiterate, 55 had been educated till the tenth standard and the rest had received a higher education. The mean age of the sample was 30.01±11.23 years and the mean age of onset was 26.74±11.03 years. Past history of affective episodes was present in 51 patients and family history of mental illness was present in 38 patients. Of these 38 patients, family history of affective illness was present in 27 patients, a family history of other mental illness in 10 patients and a family history of both in one patient.

The mean duration of the current episode was 76.35±51.36 days with a median of 75 days and a mode of 90 days. The total duration of illness for the entire sample had a mean of 39.12±50.24 months with a median of 9 months and a mode of 3 months. The range was 179.75 months. For patients with a past history of affective episodes, the mean was 69.47±51.11 months with a median of 54 months and a range of 48 months. The range was 177 months. The interepisode period between the episodes in patients who had a past history of affective illness had a mean of 42.03±44.87 months with a median of 28.5 months and a mode of 11.97 months. The range was 179.33 months. The mean YMRS total was 29.02±5.41 for the entire sample. For the entire sample life events were present for 49 (50%) patients.

On studying the symptom profile of evolution, it was seen that except two patients, the guardians were able to identify a symptom which was a departure from normalcy. The most common initial presentations were decreased sleep seen in 18 (18.36%) cases followed by talking big in 13 (13.25%), talking more in 11 (11.22%) and irritability in 9 (9.18%) cases. When reduced to DCR criteria, increase in self esteem was the most common initial presentation seen in 21 (21.42%) followed by decreased sleep and mood symptoms in 18 (18.36%) and talkativeness in 11 (11.22%).

An evolution period of more than zero days was present in 76 patients and absent in 22 patients. It was seen that duration of current episode was significantly lesser in patients without an evolutionary period (45.9±39.5 vs 86.16±5.12 days, 't' test, p=0.01). The groups did not differ in sex, substance use, religion, marital status, past history, family history, life event, education, age, age of onset, total duration of illness and YMRS total.

The evolution was completed in sixty four patients and was still ongoing in thirty four patients. A significant difference was seen in family history of mental illness with significantly more patients with a negative family history had completed their evolution (χ^2 test, p=0.03). There was no difference in sex, substance use, religion, marital status, past history, life event, education,

age, age of onset, total duration of illness, duration of current episode and YMRS total.

The mean duration of the evolutionary period in patients who had completed the evolution was 33.11±37.58 days with a median of 20 days. The range was 150 days. For the entire sample, the median was calculated using survival analysis and was found to be 45 days.

Among patients with completed evolution a significant difference across the sexes was seen in females having a significantly lesser evolutionary period (14.76±18.51 vs 37.78±39.83 days, `t' test, p=0.01). No correlation was found between YMRS total and the evolution period for those in whom evolution was complete (Pearsons correlation, p=ns). There was no significant difference in substance use, religion, past history, family history, life event.

Survival analysis revealed a significant difference in sex (log rank statistics, p=0.0089) and life events (log rank statistics, p=0.0289). Males had a longer evolution period and patients without life events had a longer evolution period.

DISCUSSION

The sample consisted predominantly of males. Other studies on mania from the Indian subcontinent have reported similar male preponderance (Chatterjee and Kulhara,1989; Khanna et al.,1992; Khess et al.,1997; Kumar et al.,2000a, 2001). The age of onset in our sample was 26.74±11.03 years. This is comparable to that reported by Khanna et al. (1992), Khess et al. (1997) and Kumar et al. (2000a). The median age of 24.67 years is comparable to that of Khanna et al. (1992) and Winokur et al. (1969).

Evolution of symptoms was present in 77% of the cases. This is comparable to 75% reported by Winokur et al. (1969) and Smith and Tarrier (1992). It is however less than 100% reported by Molnar et al. (1988) and 90% by Keitner et al. (1996). This could be due to the methodological difference in their studies asking the patients for prior episodes than the relatives for the index episode. Consistent with the findings of Molnar et al. (1988), Sclare and Creed (1990), Chakrabarti (1992) and Keitner et al. (1996) we did not find any consistent pattern of evolutionary symptoms.

The study by Molnar et al. (1988) found an increased activity and elevated mood in all patients followed by decreased sleep in 90% of the cases. Keitner et al. (1996) clubbed the symptoms into groups and found that cognitive changes were the most commonly reported by patients and behavioural symptoms by guardians. Chakrabarti (1992) found a decrease in sleep, increased talk and wandering. None of the studies asked the patients or guardians to note the first and subsequent symptoms which we did in our study. The first symptom was most commonly increased activity followed by mood and sleep changes in the study of Sclare and Creed (1990).

Our study found a decrease in sleep, talking big and excessive as the most common initial presentation. However, when we see the symptom profile in terms of the DCR criteria, we find that features suggestive of increased self esteem were the most common group followed by sleep changes and mood changes mainly irritability. This is consistent with the fin2ding of Chakrabarti (1992). The studies of Keitner et al. (1996), Molnar et al. (1988) and Sclare and Creed (1990) also found the above symptoms to be more common, though not in the same order. Furthermore the studies of Molnar et al. (1988) and Sclare and Creed (1990) found increased activity to be the most common symptom. These differences might be due to the methodological difference in the studies. These could also be due to cultural differences in evolution of mania wherein increased activity presents earlier in the western sample than in our sample. Cultural differences reported in Indian set up include greater presentations of recurrent mania (Khanna et al.,1992) and greater prevalence of mania in males (Reddy and Chandrashekhar, 1998).

Patients with an evolution had a longer duration of the current episode signifying that patients without evolution sought treatment earlier.

Total duration of illness was found to be more in patients without an evolution. Thus this could be an aspect of sensitization wherein patients with long duration of illness had abrupt

onset of episodes. Other measures of sensitization are duration of initial episode, decreasing interval between episodes and a combination of both (Kessing et al.,1998a, 1998b).

More patients with a negative family history had completed their evolution. This could be due to the reason that guardians of patients who have seen the mental illnesses can recognize one easier than those who have not. Thus they would bring the patients earlier even though the episode was still evolving. However, the fact that there was no difference in the past history goes against this argument.

Males had a longer period of evolution than females suggesting this to be one of the gender differences in bipolar disorder. This is inconsistence with the findings of Chakrabarti (1992). Gender differences reported so far are more number of depressive episodes, more rapid cycling and more dysphoric episodes in females and a later age of onset (Leibenluft,1996) and a longer duration of period required for remission (Kumar et al.,2000b). This aspect is not discussed in other studies.

Patients with life events had shorter evolution period. Thus the presence of a stressor greatly accelerates the evolution of the manic episode.

The evolution period was found to have a mean of 33.11 days. This is slightly higher than the three weeks reported by Francis and Gasparo (1994) and Molnar et al. (1988). Sclare and Creed (1990) using the concept of hospital latency reported a range of 18-58 days with a median of 54 days. While the study by Francis and Gaspro used the concept of hospital latency which should have resulted in a longer period as seen in the study by Sclare and Creed (1990), that by Molnar et al. (1988) used the concept of evolution. The less duration in the latter study might be due to the methodology of asking the patients to estimate the period of evolution. This lesser duration might also be another cultural difference wherein mania evolved faster in the west than our sample.

There was no difference in the YMRS total between patients who had an evolution or not and between patients whose evolution was completed and in those it was incomplete. This might mean that the guardians bring the patients when they reach a certain threshold severity pardoning misadventures before a point. This is supported by the lack of significant correlation between YMRS total and duration of evolution of episode. In patients in which the evolution was completed a number of days before consultation, the delay might be due to arranging leave from service, arranging money or the journey details.

This study discusses the evolution of mania from three viewpoints - evolution present and absent, complete and incomplete and the details of the evolution. It concludes that patients with life patients events and females have a shorter evolutionary period. Patients are brought for consultation when they reach a certain threshold of symptoms. There are no consistent patterns of evolution across the patient population. However it might be that the evolution may be stereotyped for each individual patient, an area which needs further investigation.

We used a self designed unvalidated symptom check list which is a major methodological limitation. This study is also limited by the sample size of ninety eight even though this is the largest sample size for studies of this nature.

There might also be some recall bias due to asking the guardians to remember events of six months prior. However, earlier studies have asked the patients to recall events over a greater period of time. Again, it is quite difficult and ethically incorrect to admit a healthy patient and watch him daily for impending relapse. The use of guardians would also have missed out on cognitive symptoms of the patients.

The authors hope that further studies are undertaken in this area to further delineate the issue.

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