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A RETROSPECTIVE FOLLOW-UP STUDY ON DIAGNOSTIC STABILITY OF ACUTE AND TRANSIENT PSYCHOTIC DISORDER IN A TERTIARY MENTAL HEALTH INSTITUTE OF NORTH-EAST INDIA

Psychiatry

Dr. Diptadhi Mukherjee Senior Resident & DM Addiction Medicine Trainee NIMHANS, Bangalore

Dr. Priya Ranjan Avinash* Assistant Professor Dept. of Psychiatry Himalayan Institute of Medical Sciences Swami Rama Himalayan University, Dehradun *Corresponding Author

Dr. Sajjadur Rehman Psychiatrist, LHMC, Delhi

Dr. Dhrubojyoti Chetia Associate Professor, Dept. of Psychiatry, LGBRIMH, Tezpur, Assam

ABSTRACT

Objectives: To study factors associated with stability of the diagnosis, and diagnostic shift of acute and transient psychotic disorder (ATPD).
Methods: 350 randomized samples from the patients attending outpatient department of LGBRIMH, Tezpur with the diagnosis of ATPD (ICD-10 diagnosis - F23) during the period of last 5 years allowing for a minimum of 3 years follow up, were reviewed. A total of 298 samples were taken for analysis after discarding the rest due to inadequate data. Finally appropriate statistical analysis was done using SPSS version 20.
Results: 32.2% of the samples were diagnosed as polymorphic subtype followed by schizophrenia like subtype (26.8%). More than half had stable diagnosis (51 %). 22% were re-diagnosed as schizophrenia and 12.3% as Bipolar disorder. ATPD diagnosis was more stable among those with stress, however it was not significant (p=0.18). Diagnosis of ATPD was significantly more stable among married people (p = 0.038), cases with abrupt onset (p=0.02), and the cases with polymorphic subtype (p=0.04). People with schizophrenic symptoms were significantly (p=0.01) more likely to be re-diagnosed as schizophrenia than those with polymorphic symptoms.
Conclusion: Our findings suggest that ATPD is a relatively stable diagnosis. However where diagnostic shift occurs, the majority are re-diagnosed as schizophrenia followed by bipolar disorder.

KEYWORDS

ATPD, F 23, Stability, Polymorphic, Diagnostic shift

INTRODUCTION

From the era of the dichotomy of psychotic disorders into dementia praecox (later schizophrenia) and manic-depressive insanity (later affective disorder), it was noted that some psychotic disorders could not be allocated to either category. Some "national" concepts (e.g., cycloid psychosis in Germany, bouffee-delirante in France, psychogenic or reactive psychosis in Scandinavia, good prognosis schizophrenia or remitting schizophrenia in the United States, or atypical psychosis in Japan) took account of this fact[1,2]. Acute and transient psychotic disorder (ATPD; F23) was first added to the WHO International Classification of Diseases (ICD-10) as a separate syndromal unit in 1992 [3]. ATPD comprise 8–9% of all psychotic disorders and arguably have a benign long-term course [4]. In ICD–10 acuteness of onset is considered to be their defining characteristic, whereas in DSM–IV duration of psychosis of less than 6 months is their distinguishing feature. There is little information about family history, premorbid functioning or course and outcome to validate the independent diagnostic status of these disorders although some studies have suggested that the ICD–10 criteria identify a diagnostically unstable group of disorders with a relatively good outcome [4,5,6,7]. Jorgensen reported that in 1 year, the diagnostic change occurred in nearly half of the sample and in the rest there was a change in diagnosis to bipolar disorders and schizophrenia [5]. In developing countries, ATPDs have a relatively high diagnostic stability (50–75%) and low rates of relapse.[7,8] .However the debate over the diagnostic stability , epidemiological and clinical characteristics and its relationship with stress continues . More over this recent surge in the studies over ATPD may be explained by the debate over its diagnostic validity in the upcoming ICD -11. Keeping this background at fore this study was done in a tertiary mental health care centre that caters to the population of north eastern part of India.

METHODS

In this retrospective follow-up study, we screened all the patients visiting in the outpatient department of LGB Regional Institute of Mental Health, Tezpur, Assam, and India. LGBRIMH is a tertiary care, teaching psychiatric institute having both inpatient and outpatient facilities. A total of 51921 patients visited the outpatient department during the period of 2007 to 2011. We identified all patients (3271) who were diagnosed as ATPD (F23) according to ICD -10 during that period. Using Sample size calculator (95% confidence level and confidence interval of 5), and random number sampling technique, 344 random patients were selected for the study [9, 10]. Finally, 298 patients were included in the study after excluding the rest due to inadequate data (poorly written case notes, F23 as a differential diagnosis, rather than provisional diagnosis). For statistical analysis regarding stability of diagnosis (Diagnosis was considered stable if there was minimum of 2 follow up in the interval of 1 month & there was full response/near complete improvement of symptoms). Further 102 patients were excluded (patients who had only 1 visit in OPD or 2 visits but interval between them was less than 1 month) due to inadequate follow up. All patients are routinely assessed through a detailed semi- structured interview. Information is elicited from the patients and their attendants who are related to or are well known to the patient and are involved in care-giving. The initial information is documented in the case files by a trainee psychiatrist in detail and is confirmed by the consultant in charge of the case. In subsequent visits (which are usually every 4–6 weeks) to the outpatient unit and/or during admissions to the inpatient unit, new information is added to the same case file. All the psychiatric diagnoses (primary and co morbid) are based on ICD-10.These case files were used in the study. Information regarding patients' psychiatric and medical histories, course of illness and response to treatment was derived from information recorded in the patient case notes. All this information was gathered according to the structured Performa devised by the authors for the purpose of the study. Descriptive statistics in terms of percentage were used for categorical variables such as socio demographic characteristics and clinical characteristics. Mean & SD was calculated for the continuous variables. For comparison chi-square test was used. The study protocol was approved by the ethical committee of LGBRIMH.

RESULTS

The hospital prevalence of ATPD in LGBRIMH was 6.3%. Among them 15 % cases needed admission at some point of time. Mean Age of the study sample was 28.71(s.d.11.997) years (table 1). Average age of onset is 28 years and which was almost equal in both male and female on similar lines according toThangadurai p. et al. 58% of the study sample was married

Age (table 1)	
Mean	28.71
Median	26.00
Mode	35
Std. Deviation	11.997
Minimum	8
Maximum	83

The sample was almost equally distributed in both male (49%) and female(51%), this is similar Thangadurai p. et al. study where male prevalence was 52%[8].However Women composed 60.7% of the population diagnosed with ATPD in the study by Rusaka and Rancans[13] .

Majority (44.3%) of the patients were educated up to secondary level (table 2)

Educational level (table 2)

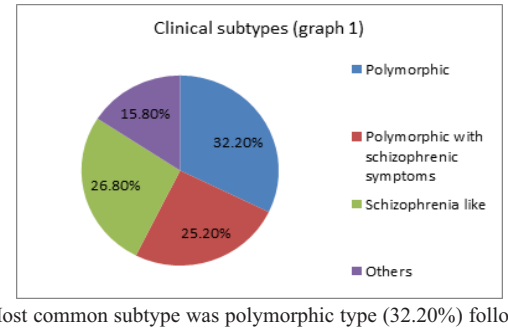
	Frequency	Percent
Illiterate	98	32.9
Primary	56	18.8
Secondary	132	44.3
Graduation and above	12	4.0
Total	298	100.0

Acute and abrupt onset was almost equal (50.7 vs. 49.3) with majority having duration of illness of less than 2 week (59.1%) (Table 3).

Duration of illness (table 3)

	Frequency	Percent	Cumulative Percent
less than 1 week	105	35.2	35.2
1 to 2 week	71	23.9	59.1
2 week to 1 month	90	30.2	89.3
more than 1 month	32	10.7	100.0
Total	298	100.0	

History of stressful life events was found in only 31% of patients. 25 % hadpast history of similar illness. i.e. 1/4th are relapse cases.27.5 % hadfamily history of mental illness. Substance use was present in minority of cases (15 %).



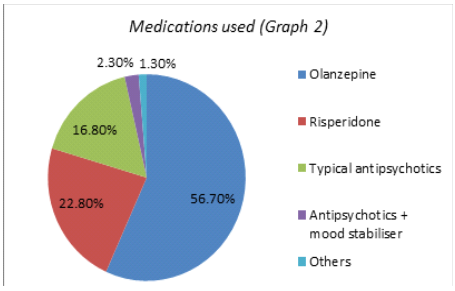
Most common subtype was polymorphic type (32.20%) followed by schizophrenia like (26.8%) (Graph 1).

Stress was significantly associated with the polymorphic subtype than other subtype of ATPD (P value 0.01) (table 4)

Table 4

	Polymorphic subtype	Others	*Marginal Row Totals*
Stress	39 (29.96) [2.73]	54 (63.04) [1.3]	93
Without stress	57 (66.04) [1.24]	148 (138.96) [0.59]	205
Marginal Column Totals	96	202	298 (Grand Total)

The Chi-square statistic is 5.8499. The P value is 0.015578. This result is significant at p < 0.05.



More than half of the patient was first treated with Olanzepine alone (56.7%) followed by Risperidone (22.80%) then typical anti-psychotics (16.80%) (Graph 2). 64.5 % cases improved with treatment. There was no significant difference in treatment response between Olanzepine and Risperidone (table 5).

Table 5

	Improved	Not improved	*Marginal Row Totals*
Olanzepine	80 (76.5) [0.16]	39 (42.5) [0.29]	119
Risperidone	28 (31.5) [0.39]	21 (17.5) [0.7]	49
Marginal Column Totals	108	60	168 (Grand Total)

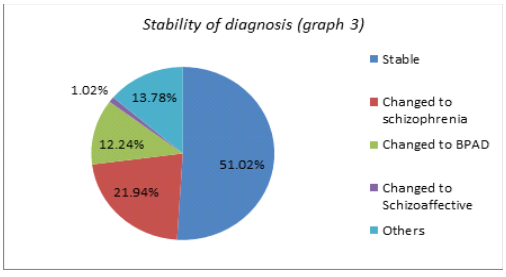
The Chi-square statistic is 1.5373. The P value is 0.215027. This result is *not* significant at p < 0.05.

Table 6

	Improved	Not improved	*Marginal Row Totals*
Polymorphic	49 (40.61) [1.73]	14 (22.39) [3.15]	63
Other subtypes	87 (95.39) [0.74]	61 (52.61) [1.34]	148
Marginal Column Totals	136	75	211 (Grand Total)

The Chi-square statistic is 6.9585. The P value is 0.008342. This result is significant at p < 0.05.

Treatment response is significantly better in polymorphic subtypes (P value 0.01) (table 6).



Minimum 3 years (2011 to 2014) stability was 51.02%. Where the diagnosis was not stable majority was re-diagnosed as schizophrenia (21.94%) followed by bipolar mood disorder (12.24%) (Graph 3). There is no significant relation between age of onset and stability of diagnosis of ATPD. Diagnosis of ATPD was significantly more stable among married (P value is 0.045) (table 7)

Table 7

	Stable	Unstable	*Marginal Row Totals*
Married	63 (56.07) [0.86]	48 (54.93) [0.88]	111
Unmarried	36 (42.93) [1.12]	49 (42.07) [1.14]	85
Marginal Column Totals	99	97	196 (Grand Total)

The Chi-square statistic is 3.9953. The P value is 0.045628. This result is significant at p < 0.05.

Diagnosis of ATPD was significantly more stable in the abrupt onset (p=0.03)

Table 8

	Stable	Unstable	*Marginal Row Totals*
Abrupt	60 (52.53) [1.06]	44 (51.47) [1.08]	104
Acute	39 (46.47) [1.2]	53 (45.53) [1.23]	92
Marginal Column Totals	99	97	196 (Grand Total)

The Chi-square statistic is 4.572. The P value is 0.032498. This result is significant at p < 0.05.

- ATPD diagnosis was more stable among those with stress than those without ,however it was not statistically significant(p=0.16)

Table 9

	Stable	Unstable	*Marginal Row Totals*
Stress	42 (37.24) [0.61]	31 (35.76) [0.63]	73
Without stress	58 (62.76) [0.36]	65 (60.24) [0.38]	123
Marginal Column Totals	100	96	196 (Grand Total)

The Chi-square statistic is 1.9751. The P value is 0.159908. This result is *not* significant at p < 0.05.

- The polymorphic subtype is significantly more stable than non-polymorphic type(P value 0.02)

Table 10

	Stable	Unstable	*Marginal Row Totals*
Polymorphic	38 (30.61) [1.78]	22 (29.39) [1.86]	60
Non-polymorphic	62 (69.39) [0.79]	74 (66.61) [0.82]	136
Marginal Column Totals	100	96	196 (Grand Total)

The Chi-square statistic is 5.246. The P value is 0.021997. This result is significant at p < 0.05.

Table 11

	Changed to schizophrenia	Changed to others	*Marginal Row Totals*
Schizophrenia like	19 (11.65) [4.64]	7 (14.35) [3.77]	26
Other subtypes	24 (31.35) [1.72]	46 (38.65) [1.4]	70
Marginal Column Totals	43	53	96 (Grand Total)

The Chi-square statistic is 11.5363. The P value is 0.000683. This result is significant at $p < 0.05$.

The diagnosis of schizophrenia like variant most commonly changed to schizophrenia over other diagnoses. This was statistically significant, with p value of 0.000683.

DISCUSSION

The current study being a pioneer one in the North east region of India from a premiere Institute having the catchment area of all the 8 North east states can be easily extrapolated with some amount of researcher's skepticism, to the whole population. In comparison to most of the studies that we reviewed, our ample size was a big advantage for us. From the time when in 1992 WHO in its 10th edition of ICD first included Acute and transient Psychotic disorder in its classification system, to the current, when they are on a brink to release its 11th edition, the diagnostic validity of ATPD is being vigorously fought.

During the study period of 2007 to 2011 the hospital prevalence of ATPD was 6.3%, while another study by Marneros A et al. [4], it was found to be 8. 5%, quite similar to our finding.

The overall stability of the diagnosis of ATPD among our samples was relatively high. The stability of ATPD diagnosis with minimum 3 years follows up was 51.02%, while for the patients who followed up for 7 years the stability was 50%. This shows that the stability of ATPD remained rather constant over the duration. This is in keeping with those reported by Marneros and Pillman (54.0%; 4.7-year follow-up period), Jørgensen et al. (52.0%; 3-year follow up period), Castagnini et al. (44.8%; 7.3-year follow-up period) [2, 5, 12]. However Rusaka and Rancans reported high stability (67.4%; 2.2- year follow-up period)as also the Chinese study of Chung Chang et al.(80.3%, 5-years follow up period)[13,15].While on other hand Aadamsoo et al. reported a lower stability rate at 34.0% (2-year follow-up period) [14]. This shows that there is a variation in the stability of ATPD in various studies, which can be explained by the methodological differences.

The diagnosis of ATPD was found to be more stable among women than in men, however it was statistically not significant (p=.29), this was in concordance with the finding of Singh et al.[11] &Castagnini et al [12] .

Furthermore, our study indicates that the polymorphic subtype (F23.0) is significantly more stable than non-polymorphic type(P value 0.02).Studies from Japan, Estonia and Latavia also suggested that patients with an F23.0 diagnosis were significantly more likely to have their diagnoses remain 'pure' ATPD [13, 14, 18]. Castagnini et al. also reported that among the ATPD subtypes, polymorphic psychotic disorder without schizophrenic symptoms had a higher stability than those featuring schizophrenic or predominantly delusional features [12].This could play a significant role in the development of amendments to the new classification (ICD-11).

In our study where the diagnosis was not stable majority was re-diagnosed as schizophrenia (44.8%) followed by bipolar mood disorder (25%).In study of Rusaka et al 70.7% of cases was changed to a diagnosis of schizophrenia[13]. Aadamsoo et al. also showed similar data, in which 64.0% of changed ATPD diagnoses were changed to schizophrenia [14]. According to another study changes were most often to schizophrenia (31.25%) and affective disorder(58.33%)[5].

Form earlier studies, ATPDs seem more often to be associated with life events than schizophrenia or manic disorder. It is pointing out that environmental factors play a part in their causation [16, 17]. In current study 1/3rd of patients experienced stressful life events and those with history of stress had relatively stable course compared to the patients without history of stress (p value 0.16).

McLean-Harvard international first-episode psychosis study (Salvatore at al., 2011) reported that a third of patients with ATPD and 72% of those with schizophrenia-like features developed schizophrenia or affective psychoses2 years later. Our study results also strongly support that evidence (table 11). That's why it has been suggested that the ATPD subtypes with schizophrenic symptoms should be withdrawn [19, 20].

In current study, other factors associated with increased stability were in married patients (p value 0.04) and in cases with abrupt onset (p value 0.03).

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