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A DESCRIPTIVE STUDY ON THE PHENOMENOLOGY, PRIMARY DIAGNOSIS AND TREATMENT RESPONSE OF CATATONIA IN A GENERAL HOSPITAL PSYCHIATRY SETTING

Psychiatry

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ABSTRACT

Catatonia, a poorly understood clinical entity, is now considered to be a separate syndrome due to both psychiatric and medical etiologies. The study tends to explore the phenomenology, primary diagnosis and treatment response of patients presenting with catatonic signs in general hospital psychiatry setting. Patients were screened for catatonic signs and quantified by using Bush Francis Catatonia Rating Scale (BFCRS). Lorazepam is initiated and titrated depending on the response. The primary psychiatric diagnosis for the patient is done by using ICD-10.During the study period, 4.5% of the total admission had catatonic signs. Mutism and Negativism, the most common signs were seen in 90%. The primary psychiatric diagnosis of 54.5% of the total patients was mood disorder. All patients responded to lorazepam and none required Electroconvulsive Therapy (ECT). Retarded catatonia was the most common type of catatonia. Mood disorder was the most common primary psychiatric diagnosis and responded to lorazepam .

KEYWORDS

Catatonia phenomenology, primary diagnosis, treatment response

INTRODUCTION

'Spannungsirresein', a German term used to connote 'insanity of tension' was the initial description of Catatonia by Karl Kahlbaum in 1874 [1]. But catatonia still remains one of the poorly understood, studied and recognized syndrome occurring in a variety of psychiatric and medical settings. The current DSM 5 has recognized catatonia partially as a separate entity, by quantifying it as a specifier [2].

The frequency of catatonia in an acute psychiatric setting is about 7% to 15% [3]. But the prevalence varies, depending on the primary diagnosis. Abrams and Taylor established that most catatonic patients have mood disorder, particularly mania. Up to 20% of manic patients exhibit catatonic signs. Pooled mean prevalence as per the meta-analysis by Solmi et al. is 9.2% [2]. Prevalence of catatonic signs in Indian studies were initially about 40%.[6] Cross cultural study by Chalasani et al estimated the incidence in India at 13.5% and that in Wales at 9.6%. [7] This shows the fact that the incidence of catatonia differs as per the study setting.

Catatonia has a very variable presentation and at least 40 different signs have been described [5]. In a study by Stuivenga and Morrens, six symptom clusters were recognized by factor analysis. Catatonia is generally classified as hypokinetic (Kahlbaum syndrome), excited , malignant and secondary to systemic illness.[3] The course of catatonia also varies from acute or chronic to isolated episodes to recurrent and periodic catatonia.[8] In the study by Chalasani et al, retarded catatonia is the most common type with an incidence of 12.5% and mutism was the most common sign.[9]

The treatment of catatonia has shifted to the use of lorazepam, which is also used as an indirect test to verify the diagnosis of the condition [10]. Response to lorazepam is seen in 70 to 80%.[11] In a study by Seethalakshmi et al, 93% responded to lorazepam with 75% showing sustained response.[9] ECT, a definitive treatment, is now considered only for cases which are unresponsive to lorazepam.

There are only a few studies from India which aims to explore the phenomenology, primary diagnosis and treatment response in patients presenting with catatonia in an acute psychiatry setting. From the above review there is a dearth of knowledge in the phenomenon of catatonia from South India. Hence the descriptive study was undertaken among inpatients presenting with catatonia with the aim of studying the phenomenology, the primary diagnosis and treatment response.

SUBJECTS AND METHODS:

The study was done in a tertiary care teaching hospital with a general hospital psychiatry department. All patients requiring inpatient care are routinely assessed by detailed general physical examination and neurological examination prior to the examination of mental state. Base line investigations are also done which includes complete blood count, liver function test, renal function test including electrolytes, thyroid function test, fasting glycemic status and electro cardiogram. Primary Psychiatric diagnosis is done after examination based on the International Classification of Diseases and Related Health problems 10th Revision (ICD-10) by a trainee psychiatrist (junior resident) under the supervision of a qualified psychiatrist (senior resident)[12].

The study was done for a period of six months from 1st October 2014 to 31st March 2015, in an exploratory open labelled study design. All patients above 18 years of age, who were admitted to the psychiatry ward were assessed for symptomatology of catatonia on the first day of admission. This was done by using the Bush Francis Catatonia Rating Scale (BFCRS). The scale has 23 items and is a clinician rated scale. The initial 14 items are used for screening. If two or more signs are present for more than 24 hours, a diagnosis of catatonia is made. [13] Consent was taken from the care giver of the patient for the study. This is followed by the assessment of severity by a Likert score from 0 to 3 on the BFCRS. The BFCRS has high inter rater reliability for screening (r=0.95) and severity (r=0.93). A factor analysis by Ungvari et al. divided the items into four dimensions namely negative /withdrawn, automatic, repetitive / echo and agitated /resistive. The diagnostic agreement between other diagnostic criteria was 75 to 100%. [13]

The patients were given a trial of Lorazepam at 3mg/day on the first day. Response to treatment is defined as a reduction in severity score by 50% after 48 hours.[10] Depending on the response to treatment the dose was adjusted to 4 to 12 mg/day.[11] Those patients who did not respond to lorazepam trial or relapsed after adequate trial for 5 days were planned to be treated with ECT. Other treatment depending on the primary psychiatric diagnosis was also given. The socio-demographic data including age, gender, diagnosis, treatment given and outcome of the catatonia were collected and analyzed.

Statistical analysis was done by using SPSS 16.0. Categorical variables were analyzed using frequency and percentages. Continuous variables were analyzed by mean and standard deviation. Regression analysis was also done to understand the relationship between the severity of catatonia and the dose of lorazepam required for response.

RESULTS:

A total of 245 patients were admitted to the inpatient unit during the period of study, of which, 11 (4.5%) fulfilled the criteria for catatonia as per BFCRS screening. In this, the majority (73%) were females. The age group of 21 to 40 years had the maximum number of patients with catatonia (n= 6, 54.5%). Mean duration of catatonic symptoms at the time of presentation was on an average 2.27 days (1 to 4 days).

The BFCRS scoring was done within the first twenty four hours of admission and the average BFCRS score was 9.73 ± 3.3 (5 to 15). The most commonly seen catatonic signs were Mutism (90%), Negativism (90%) and Staring (54%). The least commonly seen sign was Mitgehen (9%). Table 1 shows the frequency of signs of catatonia observed.

Table 1: Phenomenology of catatonia as assessed on Bush Francis Catatonia Rating Scale at baseline

Sign of Catatonia	Frequency	Percentage
Mutism	10	90.9%
Negativism	10	90.9%
Staring	6	54.5%
Stupor	5	45.4%
Ambitendency	5	45.4%
Withdrawal	5	45.4%
Posturing	2	18.1%
Rigidity	2	18.1%
Automatic obedience	2	18.1%
Mitgehen	1	9%

Among all the patients with catatonia, mood disorder was the most common primary psychiatric diagnosis seen in 54.5% (n=6). The diagnosis of Bipolar disorder and Recurrent Depressive Disorder was seen in 27% (n=3) each. This was followed by the diagnosis of Schizophrenia seen in 27.3% (n=3) and unspecified non organic psychosis seen in 18.2% (n=2). (Figure 1)

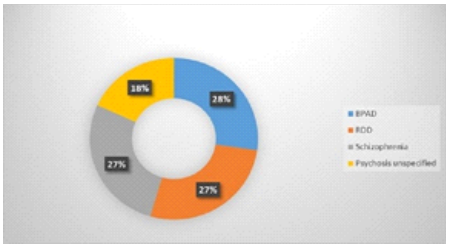


Figure 1:- Distribution of Primary Psychiatric diagnosis

In this study all the patients responded to Lorazepam and none required ECT. The average dose of Lorazepam was 5.8±2.1 mg/ day (3 to 10 mg/day). A regression analysis was done on the dose of Lorazepam and the baseline BFCRS score. Figure 2 shows a direct relationship between the dose of Lorazepam and the baseline BFCRS score. Depending on the response, Lorazepam was gradually tapered over a period of two weeks an and none had any relapse of symptoms.

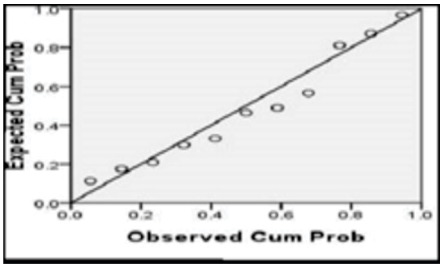


Figure 2: Relationship between dose of Lorazepam and BFCRS score at baseline

Patients were also given other psychotropics depending on their primary psychiatric diagnosis along with Lorazepam. Olanzapine was the most common psychotropic used (63.6%). Figure 3 shows the various psychotropics used.

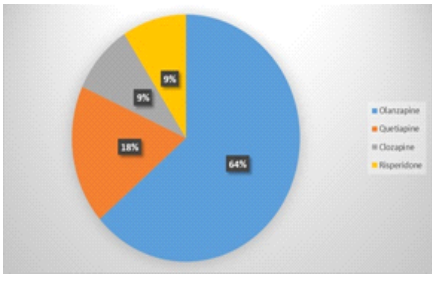


Figure 3: Other Psychotropics used

DISCUSSION:

The aim of the study was to understand the phenomenology, primary diagnosis and treatment response of patients admitted to an acute psychiatric care setting with the signs of catatonia. During the study period of six months, the number of patients admitted with catatonic signs were 11 in 245. This gives a frequency of 4.5%. This was less than that in a meta-analysis by Solmi et al, which showed a pooled mean prevalence of 9.2%.[2] A study by Sharma and Banerjee, the incidence was 37.2%[6]. Later studies from India by Dutt et al showed a prevalence of 4.8% which is similar to that seen in the current study.[14] According to a cross-cultural study by Chalasani et al, the frequency of catatonia in India was 13.5% as compared to 9.6% in Wales.[7] All these show that the frequency of catatonia varies according to the time of study, the study setting and the criteria used to make the diagnosis.[4] The lower frequency of catatonia in the current study could be due the fact that patients with systemic problems were screened prior to admission to the psychiatry inpatient care, and hence, patients with catatonia due to systemic illness were excluded by default.

Majority of patients with catatonic signs were in their middle age (21 to 40 years). This was similar to the mean age of presentation in a study by Behura et al and Dutt et al.[10] In our study, majority of the patients (73%) were females, unlike most of the other studies in Indian setting. The mean duration of catatonic symptoms at the time of initiation of treatment was 2.27 days (1 to 4 days). This was less than that in the study by Kumar et al.[15]

Mood disorders which included both Bipolar Affective Disorder and Recurrent Depressive Disorder was the major primary diagnosis seen in 54.5%. This was not in line with other Indian studies which showed schizophrenia to be the most common diagnosis.[14, 15] Schizophrenia was only seen in 27.3% which is almost half of that seen in other Indian studies. This reiterates the fact that catatonia is not primarily associated with the diagnosis of schizophrenia alone.

The mean BFCRS score in the study was 9.73 which was less compared to study by Dutt et al and Behura et al. [14, 16] The most common signs of catatonia seen in the current study were Mutism and Negativism. This was similar to other Indian studies and a cross cultural study by Chalasani et al which showed that the retarded catatonia was the most common subtype type in Indian population.[5] It was also seen that there were no patients with excited catatonia in the study. This could point to the shared population genetics which influences the underlying pathophysiology of the psychomotor syndrome.

All patients in the study responded to lorazepam and none showed relapse of signs following the reduction in dose. Another important observation in the study was that the patients responded to relatively low dose. The mean dose is 5.8 mg/day (range of 3mg to 10 mg). This finding was not in accordance with studies by Dutt et al which showed that only about 17.6% with catatonic signs responded to lorazepam.[14] One of the major reasons for this disparity could be the low BFCRS score at the baseline in our study. Regression analysis also showed a direct relationship between the Lorazepam dose and the BFCRS score at baseline. None of the patients required ECT in the study. This highlights the fact that early institution of the treatment could alter the treatment and response trajectory. This is also beneficial in bringing down the health care costs and for preventing further complications.

The add-on psychotropic profile of the patients shows that 77% were on antipsychotics, with olanzapine being the commonest (63.6%). The quality of olanzapine in being a mood stabilizing antipsychotic and its relative safety in catatonia and malignant catatonia could be the reason for this drug to be used commonly.[17, 18] The other antipsychotics used were quetiapine, clozapine and risperidone. The antidepressant Escitalopram was used in two patients (15%) and the mood stabilizer sodium valproate in one (8%). All these were add on treatments according to the primary psychiatric diagnosis.

The merit of this study is that this is the first major study from South India looking into the frequency of catatonic signs in an acute psychiatric settings to our knowledge. This study has many limitations. The exclusion of patients with abnormal physical examination, altered investigation parameters and the non- inclusion of patients from consultation liaison could be the reason for the low frequency of the catatonic signs observed. The lack of standardization in the administration of lorazepam should also be seen as a major limitation. However considering the data gathered and the difference in many key

areas, catatonia still remains a dilemma requiring a larger study to understand it better.

CONCLUSION:

Although this study has brought to light the variation in frequency of catatonia, according to the study setting, retarded catatonia still remains the most common type seen in India. The study also has the important finding that catatonia is more commonly associated with Mood Disorders and had a good response to lorazepam. The study also highlights the importance of early initiation of treatment for better response thus reducing health care costs.

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