

Psychiatric Morbidity in Patients Attending Neurology Department of a General Hospital

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Abstract

Background: Neurological disorders are known to be associated with a significant proportion of psychiatric disturbances of mild to moderate severity. Disorders like epilepsy, Parkinson's disease, multiple sclerosis and cerebrovascular disease are usually associated with anxiety disorders, affective disorders or psychoses. The overall prevalence of mental disorders in patients with neurological disorders was 55.1%, and 65.0% of the patients had mental illness at least once in their life. The most frequent current diagnoses were somatoform disorders (33.8%), followed by phobias (21.8%), substance use disorders (13.3%) and depression/dysthymia (14.4%).

Materials and methods: The study is being conducted in neurology department (both outpatient and inpatient), King George hospital in Visakhapatnam. All the patients who are enrolled in neurology department over a period of 2 months are taken for the study. A sample size of 285 was studied over a period of 2 months (August and September). This is a cross-sectional study. Psychiatric diagnoses are done by using MINI plus scale. Pearson chi-squared test and t-test are used for statistical analysis.

Results: Total of 285 patients was studied in the current study. Majority, 54.7 % of the study subjects was females and the remaining were males. Among 285 patients who visited the hospital, 194 (68%) were diagnosed to have psychiatric comorbidity with a p value <0.001.

Conclusion: Patients suffering from neurological disorders are known to have high levels of psychiatric comorbidity. Screening of such patients for various psychiatry problems to identify at an early stage for timely psychiatric intervention will go a long way in improving the recovery and quality of life of these patients.

Key word: psychiatric morbidity, neurological disorders.

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I. Introduction

Neurological disorders are known to be associated with a significant proportion of psychiatric disturbances of mild to moderate severity.¹ The relationship between neurological and psychiatric illness is complex, partly because of the many ways in which these disorders interact but also because of very real semantic problems which arise in an area of clinical practice where illness and disease are difficult to define. Disorders like epilepsy, Parkinson's disease, multiple sclerosis and cerebrovascular disease are usually associated with anxiety disorders, affective disorders or psychoses.⁴ The overall prevalence of mental disorders in patients with neurological disorders was 55.1%, and 65.0% of the patients had mental illness at least once in their life. The most frequent current diagnoses were somatoform disorders (33.8%), followed by phobias (21.8%), substance use disorders (13.3%) and depression/dysthymia (14.4%).² The prevalence of psychiatric disorder in patients with neurological disorders is more in women (63.5%) compared to men (46.4%). Substance use disorders were more frequent in men than in women.

II. Materials And Methods

Study design: cross sectional study

Study location: This study was conducted on patients attending the out-patient department of neurology at King George Hospital, Visakhapatnam.

Study duration: Studied over a period of 2 months

Sample size: 285 patients were included in the study

Subjects and selection method: All patients attending the out-patient department of neurology during the study period were approached for participation in the current study and those who met the inclusion and exclusion criteria were included in the study.

Inclusion criteria:

Age:> 15yrs

Sex: both sexes

Consent: Patients who have given informed consent.

Exclusion criteria:

Patients with prior history of psychiatric disorder before the onset of neurological disorder.

Uncooperative and noncommunicable patients.

Patients who have not given informed consent.

Procedure methodology: The purpose of this research was explained to the participants and the informed consent was obtained. General description, demographic data and psychiatric history of all the patients who attended the neurology out-patient department during the study period were recorded using the semi structured interview schedule and psychiatric morbidity was assessed by using Mini plus scale. Collected data was analyzed using SPSS version 21 and descriptive statistics, chi square tests were used. Results are shown in the form of percentages, tables.

III. Results

Total of 285 patients were included in the current study.

Table 1: Age and Gender wise distribution

Age Group (in years)	Total patients		Psychiatric morbidity		Percentage (%) of psychiatric morbidity	
	Male	Female	Male	Female	Male	Female
16-30	40	53	31	42	24.03	26.92
31-45	23	26	19	19	14.72	12.17
46-60	27	33	11	15	8.52	9.61
>61	39	44	22	31	17.05	19.87
Total	129	156	83	111	64.32	68.57

Majority of the study subjects were females (54.7 %) and the remaining were males. Of the total sample, female patients had higher (68.57%) psychiatric morbidity when compared to male patients (64.32%).

Table 2: Literacy and occupation)

		Total patients (%)	Psychiatric illness (%)	P value
Education	Literate	124 (43.5)	72 (37.1)	0.001
	Illiterate	161 (56.5)	122 (62.9)	
Occupation	Employed	257 (90.17)	170 (87.62)	0.035
	Unemployed	28 (9.83)	24 (12.38)	

Illiterate patients (62.9%) and patients who were employed (87.62%) had higher psychiatric morbidity when compared to that of literate patients and unemployed patients respectively which is statistically significant (p <0.005).

Table 3: Psychiatric disorders observed in the study population

Disorder	No. of patients	Percentage of psychiatric morbidity (%)
Somatoform disorders	69	35.56
MDE	58	29.9
Anxiety disorders	30	15.5
Substance use	26	13.4
Psychotic disorders	9	4.61
Hypomania/mania	2	1.03
Total	194	

Among 285 patients who were included in the study, 194 (68%) were diagnosed to have psychiatric comorbidity. Among the psychiatric disorders studied, somatoform disorders (35.56%) were more common than other disorders.

Table 4: Psychiatric morbidity in patients with neurological disorders

Neurological conditions	Psychiatric morbidity		Percentage
	Present	Absent	
Epilepsy	67	10	87
Stroke	35	9	79.5
Parkinson disease	28	9	75.6
Others	64	63	50.3
Total	194	91	

****Others – migraine, head injury, Tumors and other conditions**

87% of patients with epilepsy had psychiatric morbidity which is higher when compared to other neurological disorders in this study and it is statistically significant (Chi square = 34.6 at df = 3 with p value <0.001).

IV. Discussion

One of the main objectives of the study was to find out the psychiatric morbidity in patients attending neurological department. This study also tried to find out the specific types of psychiatric disorders and possible association of psychiatric disorders with Socio-demographic and relevant parameters.

In present study psychiatric morbidity was found to be 68.05%. Our results are concurrent with Javid Ahmed et al study (500 patients) in which the prevalence of psychiatric disorder was 60%.⁴ Our results are also in line with a study by Fink et al who studied 198 patients with neurological disorders and found 55.1% prevalence of psychiatric disorder.² Somatoform disorders (35.56%) is the most common psychiatric comorbidity in the current study. Similar results were found by Javid Ahmed et al study (31% in 500 patients), Perkin et al study (26.5% in 7836 patients)³ and Carson et al study (32.70% in 300 patients).⁸

Major depressive disorder was second common psychiatric comorbidity (29.9%) in our study. Similar results have been found by Carson et al study (27%) and Williams et al study (33%).⁵ 15.5% of patients fulfilled the criteria of Anxiety disorders in our study and is in tune with the study done by Javid Ahmed et al who found the prevalence of anxiety disorder in 17.66% of patients⁴ and also with Carson et al who found it in 20% of patients.⁸ In our study 13.4% of patients were diagnosed with substance abuse.

The results are in agreement with Fink et al who found the prevalence of substance abuse disorders as 13.3%² and with Javid Ahmed et al in which the prevalence is 17.66%.⁴ In our study psychotic disorders are diagnosed in 4.61% and Hypomania/Mania was diagnosed in 1.03% of patients. It is concurrent with Javid Ahmed et al study (Hypomania/Mania -3% and psychotic disorders - 3.66%).⁴

V. Conclusion

Patients suffering from neurological disorders are found to have higher levels of psychiatric comorbidity. Screening of such patients for various psychiatry problems to identify them at an early stage for timely psychiatric intervention will go a long way in improving the recovery rate and quality of life of these patients.

Limitations

The sample size was small it may not represent the whole population. Furthermore, the data was cross-sectional rather than longitudinal and therefore, the findings cannot be used to explain causal relationships. There was no control group in the study.

VI. Recommendations

Screening of comorbid mental disorders in neurologic patients is recommended. Special services should be provided within the neurology department for proper evaluation like application of screening scales and psychiatric referral should be needed for proper treatment.

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