

Utilization pattern of antidepressants in psychiatry wards of a tertiary care hospital in South Kerala, India

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Received: 17 June 2017

Accepted: 27 June 2017

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ABSTRACT

Background: Depression is an important public health problem causing impairment of social, occupational and other important areas of function. This study was done to evaluate the utilization pattern of antidepressants in the psychiatry wards of a tertiary care centre in South Kerala.

Methods: This retrospective study was carried out in a tertiary care centre of South Kerala from January to March 2016 among 52 inpatients treated with psychotropic drugs for different psychiatric ailments. Data was collected from their case records and analysed using Microsoft excel 2010. Results were expressed in proportions.

Results: Case record review of 52 patients showed that married persons and females suffered more from depression (69.2%). Bipolar disorder was the most common diagnosis (80.8%). Selective serotonin reuptake inhibitor (SSRI) was the most commonly prescribed antidepressant followed by atypical antidepressants. Escitalopram was the most commonly prescribed SSRI, followed by Sertraline. 86.5% required antipsychotics for controlling their psychotic symptoms. One fourth of the patients had hypothyroidism. 7.69 % patients required Electroconvulsive therapy (ECT). 5.7% patients developed adverse drug reactions like cogwheel rigidity, neurolept malignant syndrome and Valproate induced hyperammonemia.

Conclusions: Most common diagnosis was bipolar illness with majority requiring sodium valproate as treatment. SSRI was preferred among antidepressants. Prompt diagnosis, use of appropriate psychotropic drugs and psychotherapy can improve the quality of life in these patients.

Keywords: Antidepressants, Antipsychotics, Bipolar disorder, Utilization pattern

INTRODUCTION

World health organisation defines depression as “a pessimistic sense of inadequacy and a despondent lack of activity”. It is a mental state characterized by feeling of sadness, loneliness, despair, low self-esteem and self-reproach. The accompanying signs include psychomotor retardation, withdrawal from interpersonal contact and vegetative symptoms like amnesia and insomnia.¹ The symptoms may be chronic or recurrent and experienced for more than two weeks and can lead to suicide.² The outpatient and medication based therapy is more popular for the treatment of depression than psychotherapy.³

Antidepressants are drugs that elevate mood. Over the past three decades, a large number of antidepressants

with effect on reuptake or metabolism of biogenic amines have become available. In a study which covered 12 European countries, selective serotonin reuptake inhibitors were prescribed more commonly than other antidepressants. The same pattern is seen in most developed countries also.⁴ The prevalence of antidepressant usage in the community is increasing in the Western population, with Iceland, Australia and Sweden having the highest consumption.⁵

The recent proliferation of new drugs, the increasing recognition of adverse effects and the focus on pharmaco-economic considerations have stimulated interest in the prescribing patterns of physicians. A few studies have been reported from India regarding the use of antidepressants. The objective of this study was to

evaluate the utilization pattern of antidepressants in a tertiary care hospital.

METHODS

This retrospective observational study was carried out in the Department of Psychiatry in a tertiary care teaching hospital in South Kerala to find out the utilization pattern of antidepressants in patients treated for psychiatric ailments in the institution. Prior permission from the institutional ethics committee was sought for. Patients who attended the outpatient department of the Psychiatry unit with different psychiatric ailments, between January 2016 and March 2016, were chosen as the study population.

The diagnosis of psychiatric disorders were made by the consultant psychiatrist according to ICD 10 criteria in all patients. Only 52 patients who were admitted in the hospital with psychiatric disorders were enrolled in the study. Patients of all ages and both sexes were included. Those patients, who were diagnosed to have a psychiatric illness but treated only at the outpatient clinic were excluded from the study.

Case records of these patients were accessed from medical records section of the hospital and the data was entered in a predesigned proforma. Details like age and sex of the patient, relevant past history, family history of psychiatric illness, other comorbidities, clinical diagnosis and the drug treatment given were collected and recorded. Utilisation pattern of antidepressants were specifically looked for in all the patients. Data collected was entered in Microsoft excel 2010 and analysed. Results were expressed in proportions.

RESULTS

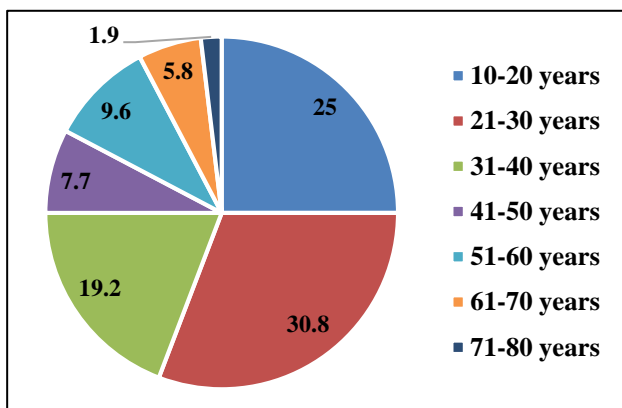


Figure 1: Percentage distribution of study participants based on age.

A record based review of 52 patients, admitted in the psychiatry wards of a tertiary care centre, between January and March 2016, was done. Age of the study participants ranged from 11 years to 80 years. Mean age was 33.04±15.978 years. 30.8% were in the age group 21

to 30 years and 25 % were between 10 and 20 years of age (Figure 1). 30.8% were males and 69.2% were females. 50% were married, 11.5 % were divorced and 26.9% were unmarried. 11.5% of patients were below 18 years. 25% of patients had family history of mental illness. Figure 2 shows the percentage distribution of study population based on educational status. 40% of the study participants had high school education (Figure 2).

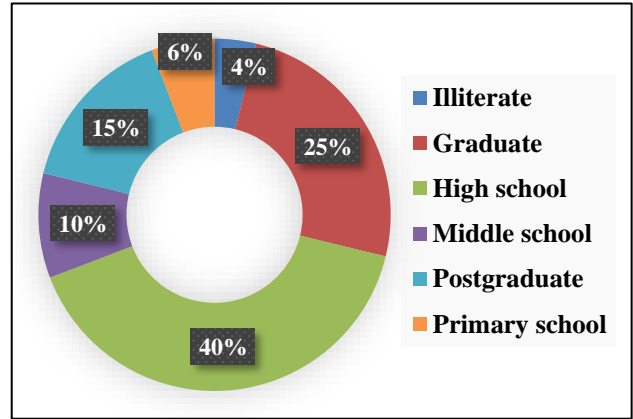
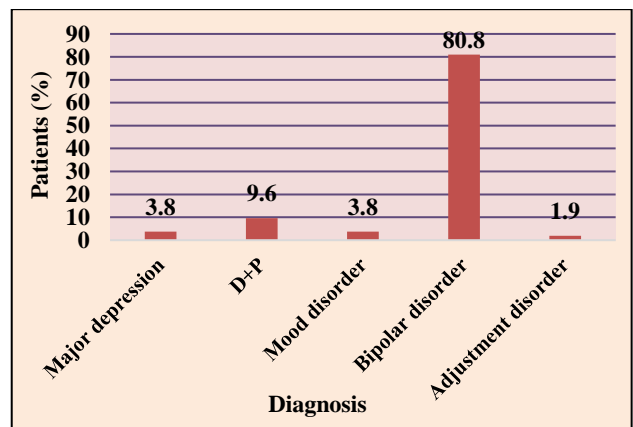


Figure 2: Percentage distribution of study participants based on educational status.

Table 1: Distribution of study population based on duration of hospital stay.

Duration (in days)	Frequency (%)
0-7	6 (11.5)
8-14	22 (42.3)
15-21	10 (19.2)
22-28	3 (5.8)
29 - 90	11 (21.2)

The distribution of duration of hospital stay in days is shown in Table 1. The total duration of hospital stays for patients ranged from 7 days to 90 days. For 42.3% patients, it ranged from 8-14 days (Table 1).

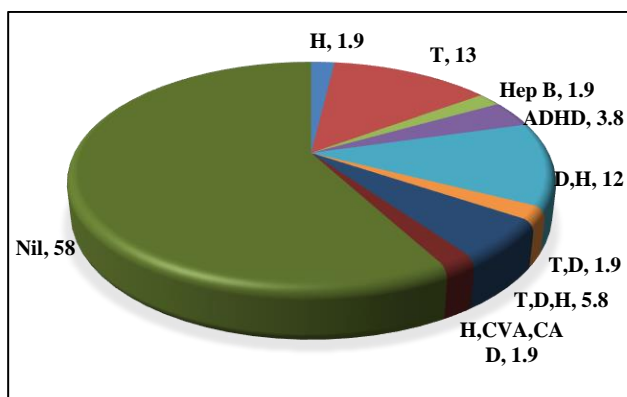


(D+P - Depression with psychotic features)

Figure 3: Percentage distribution of patients based on diagnosis.

Figure 3 shows the Percentage distribution of study population based on diagnosis. Majority of the patients (80.8%) were diagnosed to have bipolar illness. Depression with psychotic features were seen in 9.6% patients. 3.8% each presented with major depression and mood disorder. 1.9% suffered from adjustment disorder (Figure 3).

Figure 4 depicts the percentage distribution of study population based on comorbid conditions. 22 patients had comorbidities along with their psychiatric illness. In 13% patients, it was associated with hypothyroidism. 3.8% cases were associated with attention deficit hyperactivity disorder. Hepatitis B and Hypertension were seen in 1.9% patients each. 58% of the study population didn't have any comorbid conditions.



(H-Hypertension, T- Hypothyroidism, Hep B- Hepatitis B, ADHD-Attention deficit hyperactivity disorder, D-Diabetes Mellitus, CVA- Cerebrovascular accident, CAD-Coronary artery disease)

Figure 4: Percentage distribution of study participants based on comorbidities.

Diabetes Mellitus and Hypertension were coexisting along with the psychiatric ailment in 12% patients. 5.8% had hypertension, hypothyroidism and Diabetes Mellitus as comorbidities. One patient with bipolar disorder had hypertension, cerebrovascular accident and coronary artery disease (Figure 4).

All the 52 patients were treated with a combination of psychotropic drugs. Two to five drugs were combined and prescribed per patient in this study. Figure 5 shows the utilization pattern of psychotropic drugs in the study population. 51.9% patients with bipolar illness received sodium valproate along with other drugs. 86.5% were prescribed antipsychotics concomitantly for controlling their psychotic symptoms and only 21.15% were given antidepressants. Among the patients who were prescribed antidepressants, 10 were given SSRIs. Escitalopram was the preferred SSRI in these patients while others were given Sertraline. Anxiolytic agents like Lorazepam, Clonazepam and Nitrazepam were prescribed to 51.9%, 5.77% and 3.85% patients respectively (Figure 5). 7.69 % patients were subjected to electroconvulsive therapy to control depression. 5.7 % patients with bipolar disorder

developed adverse drug reactions like Valproate induced hyperammonemia, neurolept malignant syndrome and cogwheel rigidity.

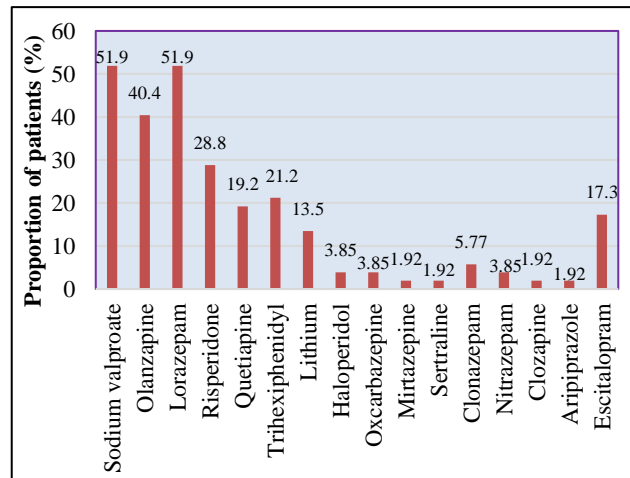


Figure 5: Utilization pattern of psychotropic drugs in the study participants.

DISCUSSION

According to the results of World Mental Health Survey, Psychiatric diseases are prevalent all around the world and among them, mood disorders and anxiety disorders are the most common ones with life time prevalence rates of 16% and 12% respectively.⁴ Antidepressants were prescribed more in females than in males. This was consistent with the findings of other studies.^{6,7} Majority of patients were in the age group 21 to 30 years. This is in contrast to a study in East Asia where majority of antidepressant drug users were over 40 years of age.⁸

Bipolar disorder was the most common diagnosis in this study (80.8%) with 51.9% patients receiving Sodium Valproate concomitantly with other drugs. 86.5% of the patients were prescribed antipsychotic drugs to control their psychotic symptoms. The percentage of prescription of antipsychotics were as follows - Olanzapine (40.4%), Risperidone (28.8%), Quetiapine (19.2%), Haloperidol (3.85%), Clozapine (1.92%) and Aripiprazole (1.92%). The monovalent cation, lithium, was prescribed in 13.5% patients. This was to control mania. Trihexiphenidyl was given to 21.2% patients to counter the extrapyramidal adverse effects of concomitantly administered antipsychotics.

Only 11 out of 52 prescriptions had antidepressants, probably because most of them presented with symptoms of mania. Among the antidepressants, SSRIs were prescribed on ten occasions since they are free of sedation and are safer at high doses. Escitalopram was the preferred SSRI, followed by Sertraline. Atypical antidepressant Mirtazapine was prescribed only on one occasion. This was against the global trend towards antidepressant prescribing practices.⁹⁻¹² Patients having

depression with psychotic features were given SSRI and atypical antipsychotics.

Anxiety symptoms are highly comorbid with depression and frequently require a medication to relieve it. Lorazepam was the most common one (51.9%) followed by Clonazepam (5.77%) and Nitrazepam (3.85%). Dose of all drugs were within the recommended dose range. All the drugs were from hospital supply, given free of cost and were prescribed by generic names. No fixed dose combinations were prescribed.

CONCLUSION

This study showed that bipolar disorder was the most common psychiatric diagnosis in the population and most of them were prescribed Sodium Valproate along with antipsychotics and antidepressants. Anxiolytics were concomitantly prescribed in many. Psychiatric disorders are frequently under diagnosed and inadequately treated. Effective management with psychotropic drugs at adequate dose and duration together with psychotherapy can significantly improve the quality of life and functional status of the individual.

ACKNOWLEDGEMENTS

The authors are thankful to Dr. Reneega Gangadhar (Professor and Head, Department of Pharmacology, Sree Mookambika institute of Medical sciences, Kulashekaram, Tamil Nadu) for the professional guidance offered during the study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Human Ethics Committee

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Cite this article as: Douglas R, Nair MK. Utilization pattern of antidepressants in psychiatry wards of a tertiary care hospital in South Kerala, India. *Int J Basic Clin Pharmacol* 2017;6:1890-3.