ABSTRACT

Objective: The main objective of the study was to find out the commonest antipsychotics prescribed in schizophrenic patients in Southern India. Methodology: The present pilot observational study was done in psychiatry department at various hospitals in Southern India. The data were collected by using a data entry form which was about age, gender, education, occupation, marital status and drug details. The diagnosis of schizophrenia was based on ICD -10 (Tenth revision). A total of 80 prescriptions were analyzed. The statistical analysis was done by using SPSS 16 with the help of Z test, Chi square test and logistic regression. Result: Out of 80 cases of schizophrenia, most of the patients were less than 45yrs. Among them 78.75% were male, 21.25% were female and, 86.25% were unemployed. The study revealed that 46.25% of patients were students followed by 25% housewives. Risperidone was the commonest atypical antipsychotic drug prescribed (34.35%), especially by psychiatrist for male patients as compared to female patients. Moreover, risperidone was found to cause minimal extra pyramidal symptoms (EPS) with faster recovery rate. Conclusion: According to the utilization pattern of antipsychotics, it may be concluded that the atypical antipsychotics were used relatively more commonly than that of typical antipsychotics. Among the atypical antipsychotic drugs, risperidone was the preferred drug of choice for treating schizophrenia as compared to other atypical antipsychotic drugs in Southern India.

KEYWORDS: The main objective Risperidone Southern India.

INTRODUCTION

Schizophrenia is a severe mental disorder, characterized by profound disruptions in thinking, affecting language, perception, and the sense of self. People with this psychosis can
experiences positive, negative (or deficit), cognitive or affective symptoms. It often includes psychotic experiences, such as hearing voices or delusions. Schizophrenia is associated with considerable disability which may affect educational and occupational performance. Schizophrenia typically begins in late adolescence or early adulthood. It is thought that an interaction between genes and a range of environmental factors may cause schizophrenia. Psychosocial factors may also contribute to schizophrenia.

Schizophrenia affects more than 21 million people worldwide but is not as common as many other mental disorders. It is more common among males (12 million), than females (9 million). Schizophrenia also commonly starts earlier among men. People with schizophrenia are 2-2.5 times more likely to die early than the general population. This is often due to physical illnesses, such as cardiovascular, metabolic and infectious diseases. This lifelong mental illness cannot be cured but usually can be controlled with proper treatment. Schizophrenia is a devastating disorder for most people who are afflicted, and very costly for families and society. There are effective treatments for schizophrenia and people affected by it can lead a productive life and be integrated in society.

Pilot programmes in a few developing countries such as Guinea-Bissau, India, Iran, Pakistan and the United Republic of Tanzania, have demonstrated the feasibility of providing care to people with severe mental illness through the primary health-care system by provision of essential medicines, appropriate training of the primary health care personnel; strengthening of the families for home care; professionals to provide support to peripheral levels, including referrals, public education to decrease stigma and discrimination.[1]

Drug Utilization Research (DUR) was defined by the WHO in 1977 as “The marketing, distribution, prescription, and use of drugs in a society, with special emphasis on the resulting medical, social and economic implications”. [2] This study of utilization pattern of antipsychotic drugs in these patients from Southern India focuses on the need to balance between the risk and the benefits of treatment. Currently a large number of antipsychotics are available in the market but the better option for treatment by clinician’s preference is the baseline for this study.

MATERIALS AND METHOD
The present pilot study was carried out between November 2016 to December 2016 at various hospitals in Southern India. The diagnosis of schizophrenia was based on ICD -10
(Tenth revision) classification of mental and behavioral disorders, diagnostic criteria for research. 80 patients of both genders of all types of schizophrenia were included in this study. There was no age limit for the patients. The collected data include socio demographic details such as age, gender (male and female), occupation (housewife, laborer, student, farmer, retired and others), employment (employed and unemployed), groups of drugs, price details. Cases like depression, anxiety, mania, bipolar disorder, recreational drug case and mental retardation were excluded from the study. Data analysis was done with the help of SPSS 16.1. Z test, Chi square test and logistic regression were used for analytical purpose. \( p < 0.01 \) considered to be significant. The main outcome variable was the commonest antipsychotic drug prescribed.

RESULTS AND DISCUSSIONS

Table 1: Tabulation between socio demographic factors and schizophrenia in psychiatry patient

<table>
<thead>
<tr>
<th>Socio demographic factors</th>
<th>Number</th>
<th>Percentage</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;45 years</td>
<td>52</td>
<td>65%</td>
<td>0.0001</td>
</tr>
<tr>
<td>&gt;45 years</td>
<td>28</td>
<td>35%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>21.25%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Male</td>
<td>63</td>
<td>78.75%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>11</td>
<td>13.75%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Unemployed</td>
<td>69</td>
<td>86.25%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>37</td>
<td>46.25%</td>
<td>-</td>
</tr>
<tr>
<td>House wife</td>
<td>20</td>
<td>25%</td>
<td>-</td>
</tr>
<tr>
<td>Farmer</td>
<td>13</td>
<td>10.25%</td>
<td>-</td>
</tr>
<tr>
<td>Retired</td>
<td>11</td>
<td>13.75%</td>
<td>-</td>
</tr>
<tr>
<td>Laborer</td>
<td>9</td>
<td>11.25%</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 1. Impact of antipsychotics on the socio demographic data
DISCUSSION

In this study it was noticed that out of 80 cases of schizophrenia, 78.75% of the cases were males and 21.25% were females. The data showed that the finding resembled to research studies conducted in Nepal and Bangaldesh by Banergee et al., and Fahdima et al. respectively, as there also males suffer more with schizophrenia than females. But contrast to this study done by Mant A et al. In Australia found that females were more affected with schizophrenia than males. In our study most of the schizophrenic patients (65%) were below the age of 45 years and only 35% of the patients were over 45 years. Similar nature of findings were reported by Sushama et al, and Maki et al.,. In Sushma et al., study Schizophrenia was more commonly seen in the patients in the age group of 20-40 years with a male preponderance of 71%.

Our study revealed that schizophrenia was most commonly seen among students (46.25%), followed by housewives (25%), farmers (10.25%) and laborers (11.25%). This is similar to the results of research done by Banerjee et al.,

Fig. 2 describes the impact of antipsychotics on socio demographic data. The most commonly prescribed drugs were second generation antipsychotics (atypical antipsychotics) followed by conventional/1st generation anti-psychotics. Second-generation antipsychotics (SGAs) (with the exception of clozapine) have become first-line agents in the treatment of schizophrenia. Similar nature of studies carried out across the world also indicated the recent trend of use of atypical antipsychotics.
No absolute criterion distinguishes atypical (second-generation) from typical (traditional, conventional, or first-generation) antipsychotics, and no universally accepted definition exists for an atypical antipsychotic. Other attributes that have been ascribed to SGAs include enhanced efficacy, particularly for negative symptoms and cognition; absence or near absence of propensity to cause tardive dyskinesia; and lack of effect on serum prolactin.\[^{11}\] Although conflicting, some evidence suggests that SGAs can have superior efficacy for the treatment of negative symptoms, cognition, and mood.\[^{8,9}\] This is, as per the current recommendations first line drug for schizophrenia is atypical antipsychotics the newer/2nd generation drugs were more effective with minimal extra pyramidal symptoms (EPS). But that belief is now fading. In addition, the high cost of the 2nd generation antipsychotics/atypical class of drugs are known to cause other metabolic disorders is a matter of concern.\[^{12-17}\] There have been some important studies which found that 1st generation drugs are as useful as the 2nd generation drugs, with the exception of clozapine which outperforms all.\[^{18,19}\] In a study reported by Piparva et al., 2001, in India, it clearly showed that the usage of atypical antipsychotics drugs were significantly higher than the typical antipsychotic drugs. The newer atypical antipsychotics is also efficacious in improving the negative symptoms of schizophrenia.\[^{20}\]

In our study we found that risperidone was the commonest atypical antipsychotic drug prescribed (34.35 %), as shown in the (fig 2) especially by psychiatrist for male patients as compared to female patients as shown in (fig 2). Our finding is similar to the finding in the study by Thakkar et al., in the Psychiatry Outpatient Department of a Tertiary Care Hospital, where the most commonly prescribed drugs were conventional/1st generation antipsychotics.\[^{21}\]

Risperidone has a low incidence of EPS at low to moderate doses. The mean optimal dose in parallel, fixed-dose studies was 4 to 6 mg daily. At doses greater than 6 mg daily, risperidone’s profile is more similar to that of an FGA.\[^{22}\] Moreover, risperidone was found to cause minimal extra pyramidal symptoms (EPS) with faster recovery rate. To date, the only approved SGA that fulfills all of these criteria is clozapine.\[^{23}\] Results from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study indicate that olanzapine, compared with quetiapine, risperidone, ziprasidone, and the FGA perphenazine, has modest superiority in maintenance therapy when treatment persistence is the primary clinical outcome.\[^{24}\] However, increased metabolic adverse effects occurred with olanzapine.
Clozapine has superior efficacy in decreasing suicidal behavior and it should also be considered as a higher treatment option in the suicidal patient. Clozapine can also be considered earlier in treatment in patients with a history of violence or comorbid substance abuse.\cite{8} Stage 4 of the treatment algorithm includes clozapine and augmentation with either a FGA, SGA, or electroconvulsive therapy (ECT).\cite{25}

**CONCLUSION**

According to the utilization pattern of antipsychotics, it may be concluded that the atypical antipsychotics were used relatively more commonly than that of typical antipsychotics. Among the atypical antipsychotic drugs, risperidone was the preferred drug of choice for treating schizophrenia as compared to other atypical antipsychotic drugs in Southern India.

**REFERENCE**


