INTRODUCTION

Schizophrenia is a clinical syndrome of variable but profoundly disruptive psychopathology that involves cognition, emotion, perception, and other aspects of behavior. The expression of these manifestations varies across patients and over time, but the effect of the illness is always severe and is usually long lasting.

Schizophrenia is a severe form of mental illness affecting 7 per thousand of the adult population, mostly in the age group of 15-35 years. Though the incidence is low (3 - 10,000), the prevalence is high due to chronicity[1].

The discovery of antipsychotics in the 1950s revolutionized the treatment of schizophrenia and focused on the positive symptoms. The advent of the novel antipsychotics during the last 15 years represents a significant improvement over the effectiveness of conventional antipsychotics. Among the advantages of these second generation antipsychotics over first generation antipsychotics are reduced extrapyramidal side effects[2-3], reduced risk for tardive dyskinesia[4-5], and possibly beneficial effects on cognitive functioning[6] and negative symptomatology.

Aims and Objectives

AIM:
“To compare safety profile of olanzapine and risperidone in the treatment of schizophrenia”

OBJECTIVES:
• To study and compare the safety profile of olanzapine and risperidone in the treatment of schizophrenia. This will be done with the help of the ESRS (Extra pyramidal symptom rating scale).

METHODS & MATERIALS

STUDY AREA: The study was performed at the Department of Pharmacology in collaboration with Department of Psychiatry, MGM medical college, Kamothe, Navi Mumbai. Here patients were offered outpatiet consultation and admission when necessary.

SELECTION OF CASES: The participants were of at least 18 years of age and below 60 years who had provided written informed consent before any study procedure was initiated.

DURATION OF THE STUDY: October 2012 to September 2014. SAMPLE SIZE: 110

EXCLUSION CRITERIA
• 1) Patients requiring ECT or hospitalisation. Patients with hypertension, cardiac disorder. 2) Pregnant or nursing females. 3) Patients having any past history or physical disorder that is likely to deteriorate during participation. 4) Patients with suicidal tendencies. 5) Unable to provide informed consent.

The study was an open label, prospective, randomised comparative clinical trial.

Ethics approval from Institutional Ethics Review Committee (IERC) was obtained.

The study included 110 patients of schizophrenia. The extra pyramidal symptoms were assessed with the help of the ESRS (Extra Pyramidal Symptom Rating Scale).

RESULTS

The mean change in the score was 3.709. The score at baseline was 1.436 which increased to 5.145 at the end of 6th week. The result indicates that there is significant increase in the score of ESRS scale for both olanzapine and risperidone but the increase was more in the risperidone group.

Statistical Analysis:
Data is presented using Descriptive statistics, Graphs and Charts. Further analysis was done using ONE WAY ANOVA TEST (The F test) & INDEPENDENT SAMPLE t-test. All means are expressed as mean ± standard deviation. The critical levels of significance of the results were considered at 0.05 levels i.e. P < 0.05 was considered significant.

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The result indicates that there is significant increase in the score according to duration (p< 0.001). One - way ANOVA test was used. The mean change in the score was 3.491. In the questionnaire scale the scores increased exhibiting symptoms of mild severity in both the groups.

**FIG 1.** Effect of Olanzapine and risperidone on Questionnaire

**EFFECT OF OLANZAPINE AND RISPERIDONE ON THE PARKINSON’S SCALE**

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<thead>
<tr>
<th>Table 3: Effect of Risperidone on Parkinson’s scale</th>
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<td>Week</td>
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The result indicates that there is significant increase in the score according to duration (p< 0.001). One - way ANOVA test was used. The mean change in the Parkinsonism scale was 7.688.

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<th>Table 4: Effect of Olanzapine on Parkinson’s scale</th>
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<td>Week</td>
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<td>Baseline</td>
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The result indicates that there is significant increase in the score according to duration (p< 0.001). One - way ANOVA test was used. The mean change in the Parkinsonism scale was 7.182. On parkinsonian examination the scores in both the groups increased significantly (p<0.001).

**Fig 2.** Effect of olanzapine and risperidone on parkinson’s scale

**EFFECT OF OLANZAPINE AND RISPERIDONE ON DYSTONIA SCALE**

<table>
<thead>
<tr>
<th>Table 5: Effect of Risperidone on Dystonia</th>
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<td>Week</td>
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<td>Baseline</td>
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**DISCUSSION:**

**EFFECT ON EXTRAPYRAMIDAL SYMPTOMS:**

In the questionnaire scale the mean change in score (i.e. increase) in the risperidone group was 3.709 and in the olanzapine group was 3.491. In the parkinsonism score the mean change was 7.182 in the olanzapine group and was 7.688 in the risperidone group. Not a single patient from either of the group presented with acute torsion dystonia. But in the risperidone group 2 patients presented with mild(2) score and 1 patient presented with very mild(1) score on the 7 point ESRS SCALE. In the olanzapine group 2 patients presented with very mild (1) score on the 7 point ESRS scale. The above table indicates the effect of Olanzapine on Dystheinias score. The result indicates that there is significant increase in the score according to duration (p< 0.001). One - way ANOVA test was used. The mean change in the score at the end of the study was 0.109.

Tran P V et al (1997) did a Double blind comparison of olanzapine versus risperidone in the treatment of schizophrenia and other psychotic disorders. Statistically significantly fewer adverse events were reported by olanzapine-treated patients than by their risperidone-treated counterparts.

Saeed Shoja Shafti and Mahsa Gilanipoor in 2014 conducted A Comparative Study between Olanzapine and Risperidone in the Management of Schizophrenia. Conclusion of the study is that...
olanzapine showed superior efficacy with respect to negative symptoms, along with lesser extrapyramidal side effects, in comparison with risperidone.

CONCLUSION:
Olanzapine produced fewer extrapyramidal side-effects as compared to Risperidone on the 7-point ESRS Scale. Thus, the conclusion of our study is that Olanzapine still remains the treatment of choice for schizophrenia.

REFERENCES