



ORIGINAL RESEARCH PAPER

Pharmacology

COMPARISON OF EFFICACY OF OLANZAPINE AND RISPERIDONE AMONGS SCHIZOPHRENIA PATIENTS

KEY WORDS: Efficacy, Olanzapine, Risperidone, Schizophrenia,

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ABSTRACT

Schizophrenia is a severe mental disorder. It is characterized by Delusions, Hallucinations, Disorganized speech, grossly disorganized or catatonic behavior, Negative symptoms (i.e., diminished emotional expression or avolition) etc. Present study is a cross sectional, observational study to find out adverse drug reactions and efficacy of antipsychotic drugs used in schizophrenia and bipolar patients. This article is only a part of my study which compares the efficacy between Olanzapine and Risperidone amongst schizophrenia patients. Total 77 patients were registered after taking written informed consent. Out of which 30 registered in Bipolar group and 47 in schizophrenia group. Most of patients were in Age group of 30-39 years (n= 28 means 36.36%). Result statistically analyzed by paired t-test. The result revealed that Olanzapine is more efficacious than Risperidone.

INTRODUCTION

schizophrenia is a severe mental disorder. The Indian national rate observed was 2.3 per 1000<sup>(1)</sup> and continued to be a major psychiatric problem often developing in adolescents or in early adulthood. (Schizophrenia a Greek word meaning Schizo(split) and Phreno(Mind). Meaning poor connect or split between thought process with emotion and behavior.

Symptoms of schizophrenia usually start between ages 16 and 30 Scientists also think that interactions between genes and aspects of the individual's environment are necessary for schizophrenia to develop. Environmental factors may involve<sup>(2)</sup>

- Exposure to viruses
- Malnutrition before birth
- Problems during birth
- Psychosocial factors

Research over the decade has confirmed repeatedly that the earlier that people get treatment for the early signs of mental illness (especially schizophrenia) the better the long term outcome for the person. They may withdraw from friends and family, or have trouble focusing at school or work.<sup>(3)</sup>

MATERIALS AND METHODS

It was cross sectional prospective observational study jointly conducted in department of pharmacology and department of psychiatry N.S.C.B. Medical College Jabalpur (M.P.) from February 2015 to March 2016. With topic "an observational study of adverse drug reactions of antipsychotic drugs in schizophrenic and bipolar disorder patients." With efficacy assessment of drugs used as secondary objectives.

The participants in this study of any age and sex who had been offered to voluntary participate in this study and they had given the informed written consent before they were enrolled in the study, in case of minor informed written consent was obtained by his/her guardian.

For efficacy observation among schizophrenia patients PANSS (Positive and negative symptoms scale) score and BPRS (Brief Psychiatric rating scale) score applied and for Severity/ improvement CGI-S/I (clinical global impression- Severity/ Improvement) score was taken in study. Score were taken at baseline 8th week, 16th week and at 24th week.

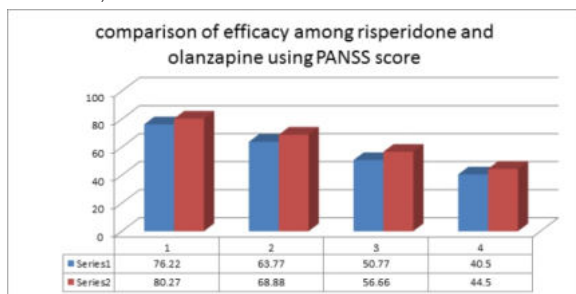
OBSERVATION AND RESULT

A total of 77 patients were registered, in which 47 patients were registered for schizophrenia and 30 patients for bipolar disorder. Highest patients registered in 30-39 year age group. Among all patients 49.35% (n=38) were males and 50.64% (n=39) were females. In schizophrenia group of patients 16 patients were put

on Risperidone therapy, 20 patients on olanzapine therapy, 5 patients on haloperidol and 6 patients on Trifluoperzine. Here we compare the efficacy of Risperidone and olanzapine used in schizophrenia.

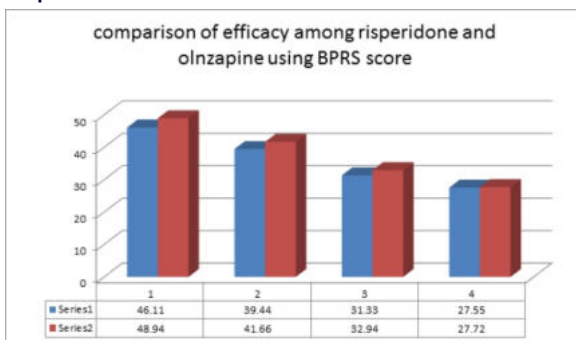
Graph -1: Series 1-Risperidone, Series 2- olanzapine

1(Baseline score), 2(8th week score), 3(16<sup>th</sup> week score), 4 (24<sup>th</sup> week score)



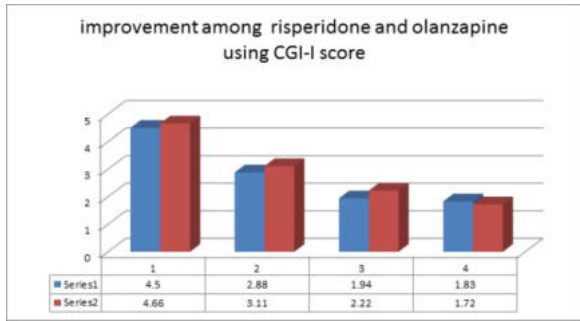
PANSS score (score/ numbers given to patient according to his/her symptoms at baseline and at follow up visits) symptoms reduction found to be from 76.22 (baseline) to 40.5 (at 24 week) by risperidone is 46.86% (35.72) and by olanzapine 80.27 (baseline) to 44.5(at 24 week) that is 55.43% (35.77).

Graph -2:



BPRS (Brief Psychiatry Rating Scale) score reduction (Symptoms Reduction) found to be from baseline (46.11) to 24 week (27.55) by risperidone is 40.26%. And by olanzapine is 43.36% (baseline 48.94 and at 24 week is 27.72).

Graph-3:



CGI-I (Clinical Global impression- improvement) score observed from baseline (4.5) to 24<sup>th</sup> week (1.83) by risperidone is 59.33%. And by olanzapine is 63.1% (baseline 4.66 and at 24th week).

**DISCUSSION**

Most of the patient in this study were 31-39 year old, Efficacy in our study (improvement by Olanzapine In PANSS scale is more compared to risperidone) is about to be similar to **Romikadhar et al** (the improvement on total as well as the 3 subscale scores in olanzapine group was more.)<sup>[4]</sup>

Efficacy in BPRS is best shown by olanzapine (43.36%) compared with risperidone (40.26%) comparable to **Hoyberg et al**<sup>[5]</sup>.

While in CGI-I score improvement by olanzapine (63.1%) is more compared with risperidone (59.33%).

**CONCLUSION**

By this study conclusion drawn that olanzapine is more efficacious compared to risperidone in schizophrenia.

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