Systematic Review and Meta-analysis of Risperidone for the Treatment of Schizophrenia

INTRODUCTION

- Schizophrenia is a chronic and disabling psychotic disorder.
- The annual incidence of schizophrenia averages 15 per 100,000, and the average point prevalence is around 4.5 per population of 1000
- The risk of developing schizophrenia over one’s lifetime averages 0.7%
- Risperidone is a second generation/ atypical antipsychotic with actions on 5HT and D2 receptors, which is used in the treatment of schizophrenia

OBJECTIVE

- To evaluate the efficacy and safety of Risperidone for the treatment of Schizophrenia.

MATERIALS AND METHODS

- Literature search was conducted in MEDLINE, Embase, PsyNIFD and CENTRAL databases
- All randomized controlled trials (RCTs) examining the efficacy and safety of risperidone in adult patients with Schizophrenia were included
- In addition, references of the included studies were screened for additional studies
- Two authors independently selected papers, extracted data and assessed quality
- Primary outcome was improvement in symptom severity assessed by Positive and Negative Syndrome Scale (PNASS), PNASS positive and and PNASS negative at 12 months
- Secondary outcomes were Clinical Global Impressions Scale (CGIS), and adverse events.

RESULTS

- The change in symptom severity as assessed by PNASS total score was compared between Risperidone and placebo.
- The change in symptom severity for each patient was presented as follows:

DISCUSSION

- The typical manifestations of schizophrenia include positive and negative symptoms
- Positive symptoms refer to an excess or distortion of normal functions, and include fixed, false beliefs (delusions) and perceptions without cause (hallucinations)
- Negative symptoms represent a diminution or loss of normal functions, and include apathy and lack of drive, disorganisation of behaviour and thought, and cataleptic symptoms such as mannerisms and bizarre posturing
- Schizophrenia typically presents in early adulthood or late adolescence
- When compared to women with schizophrenia, men with schizophrenia have an earlier age of onset, and tend to experience a more serious form of the illness with more negative symptoms, less chance of full recovery and a generally worse outcome
- Schizophrenia results in significant amount of suffering and disability with 80-80% of patients not able to work
- Antipsychotic medications form the mainstay of treatment of psychotic symptoms
- The second generation (atypical) antipsychotics (risperidone, olanzapine, and clozapine) are preferred over older (typical) antipsychotics (haloperidol, chlorpromazine) because of their lower incidence of extrapyramidal, anticholinergic and cardiac side effects and a possible greater efficacy in reducing negative and neurocognitive symptoms
- There is a dearth of studies comparing efficacy and safety of different second generation antipsychotics
- Suggested treatment algorithm for a patient suffering from Schizophrenia is shown in the figure

CONCLUSION

- Risperidone was associated with similar improvement in symptom severity among patients with Schizophrenia when compared to other atypical antipsychotics
- Since the reported outcomes are showing wide confidence intervals, results should be interpreted with some caution
- Additional RCTs are required to confirm the findings of our analysis

REFERENCE