

A Case Study to Assess the Risk of Cardio metabolic Side Effects in Patients Receiving Atypical Antipsychotics Particularly Risperidone and Clozapine

P Kanmani*, Sankar A, Umashankar, Aravind Raj S, Goutham kumar A P, K Padmalatha

Department of General Medicine, Sree Balaji Medical College and Hospital, Chennai

ABSTRACT

The Atypical antipsychotics (AAPs) are usually associated with increased risk of weight gain and increased incidence of metabolic side effects particularly impaired glucose tolerance, weight gain, dyslipidemia. Epidemiological, cross-sectional and prospective studies suggest that two of the AAPs, risperidone and clozapine, cause the most dramatic weight gain and metabolic impairments including increased fasting glucose, insulin resistance incidence and raised triglycerides levels. Comparing to other AAPs both risperidone and clozapine exhibit a particularly high antagonistic affinity for histamine and muscarinic receptors which have been the main cause reported for increase in weight gain and the development glucose abnormalities. In this study we studied about the cardiovascular and metabolic abnormalities (such as obesity, hyperglycemia, dyslipidemia and metabolic syndrome).

Key words: Epidemiology, Antipsychotics, Risperidone and Clozapine

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Corresponding author: Kanmani P

e-mail ✉: kanmani1992@gmail.com

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INTRODUCTION

Atypical anti psychotics are the mostly prescribed medication in patients presenting with psychosis nowadays. Because of the risk of neurological and extra pyramidal side effects of the conventional antipsychotics drugs, atypical antipsychotics are commonly preferred nowadays. However, the atypical antipsychotics are well known for their cardio metabolic side effects such as obesity, hyperlipidemia, hyperglycemia, and hypertension. These cardio metabolic side effects along with sedentary life style of the patients, substance abuse commonly alcohol and smoking and those peoples with the increased genetic vulnerability of diabetes and hypertension increases the mortality and morbidity for two to three folds higher in patients receiving atypical antipsychotics in comparison to the general population [1-3]. So Early assessment and intervention for these cardio metabolic side effects can help to improve long term side effects and outcomes and life expectancy in these patients who are receiving these atypical antipsychotic drugs.

METHODS

To assess the risk of cardio metabolic Side effects in patients receiving atypical antipsychotics. A sample size of 50 patients diagnosed with psychosis and attending sree balaji medical college and hospital receiving atypical antipsychotics were assessed (clozapine and risperidone). All these patients were referred from the department of psychiatry for elevated blood pressure, deranged lipid profile and blood sugars. Clinical recording of parameters of blood pressure, weight, waist circumference, Body Mass Index, diet pattern and investigations like fasting and postprandial blood sugars, blood pressure monitoring, fasting lipid profile and ECG was done. Diagnosis was made based on the standard guidelines and protocol [4,5].

RESULTS

Hyperlipidemia, hyperglycemia, hypertension and weight gain were likely due to the use of atypical antipsychotics. Clearly there was a significant association of these metabolic side effects due to the illness and its treatment- atypical antipsychotics.

INTERPRETATION AND CONCLUSION

The rates of metabolic disorder-hyperglycemia, hypertension, hyperlipidemia and general cardiovascular risks are high in those receiving atypical antipsychotics particularly olanzapine and clozapine. We hereby

emphasise the importance of regular monitoring for elevated blood sugars, lipid profile, blood pressure and increased weight gain. Early detection and intervention improves the life expectancy of in these patients and improves the long term outcomes.

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