

FREQUENCY OF PSYCHOTROPIC DRUGS USE BY PATIENTS WITH SCHIZOPHRENIA IN EIGHT YEARS FOLLOW-UP

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ABSTRACT

Objective: To measure the frequency of various psychotropic drugs used by patients with schizophrenia in 8 years follow up.

Methodology: It was a descriptive observational study. This study was conducted at Department of Psychiatry Lady Reading Hospital Peshawar from 2004 to 2012. A sample of 52 patients diagnosed as schizophrenics was included through consecutive sampling. These patients were part of a project known as Severe Mental Illness (SMI). They were regularly assessed once in a month and were provided antipsychotic, antidepressants and mood stabilizers.

Results: The study included 52 (n=52) patients. Males were 33 (62%) and females were 19 (37%). Age of patients ranged from 15-60 with the mean age of 28.82 ± 10.67 . Mean age of males was 31.08 ± 9.66 and of females was 25.84 ± 11.43 . Number of visits missed during the study was 2%. Fifty two% of patients were stable on 4mg of risperidone per day. Fifty percent of the patients were stable on 5 to 10mg of olanzapine per day. Depot preparation was required by 38% and less than 50% of the patients required carbamazepine as mood stabilizers from 200 to 400mg per day. Twenty three percent of the patients required 20gm of fluoxetine per day.

Conclusion: During 8 years follow up the most frequent anti psychotic drugs used by patient to remain stable were risperidone 4mg per day followed by olanzapine 5 to 10 mg per day

Key Words: Schizophrenia, Risperidone, Olanzapine, Carbamazepine, Fluoxetine

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INTRODUCTION

Schizophrenia is a disorder characterized by heterogeneous nature, diverse history, symptoms and subtypes. Subtypes may be identified on the basis of prognosis, course or response to treatment. From a clinical perspective it is important to identify this disorder. Initial investigative and diagnostic refinements involved the subdivision of schizophrenia into positive and negative syndromes. Delusions, hallucinations, and bizarre behavior were part of positive schizophrenia, while blunted affect, avolition, and attentional problems were significant features of negative schizophrenia¹.

The potential of anti psychotic drugs in preventing relapse of schizophrenia has been well documented during the past 50 years². It has been suggested that anti psychotic doses can be reduced during maintenance period. However in recent years it is suggested that initial therapeutic dose of anti-psychotic drugs es-

pecially atypical anti-psychotics, should be maintained in the prolong treatment of schizophrenia^{3,4}.

In past 30 years randomized controlled trials (RCTs) for anti-psychotic medication have come to dominate research in schizophrenics, but these are short term often only weeks and have limited follow-up. This has been witnessed as cohort studies in actively treated schizophrenia, such as European schizophrenia outpatient health outcome (SOHO) study and schizophrenic care and assessment program (SCAP) study. Consecutive samplings and pragmatic simple clinician rated outcome measures were used in these studies^{5,6,7}.

This is an observation study of schizophrenic patients using mainly atypical antipsychotics except fluphenazine decanoate depot preparations. Atypical anti-psychotic medications are more efficacious, had fewer side effects and may be neuro-protective. There is a debate that atypical antipsychotics as a group are no

more efficacious for schizophrenia than the typical antipsychotics (whether chronic, acute or first episode)⁸⁻¹².

However some question can be answered more logically with the passage of time e.g. serious side effects like tardive dyskinesia appear late in the course of illness and is not addressed by pharmaceutical companies as post marketing surveillance⁶. Also in Latin American countries where mental health is not integrated in primary health comprehensively and with fewer mental health facilities and professionals it appear as viable option^{13,14,15}.

This observational and quasi experimental pragmatic study can give more meaningful insight how to handle this condition in real life (because RCT findings are difficult in applying to the heterogonous patients with psychotic and physical co-morbidities. Our primary aim is to know the pattern and dosages of various atypical anti-psychotics, psychotropic SSRIS and mood stabilizers in the group of patients suffering from schizophrenia, and it will help constitute the basis of recommendation for routine clinical care of this disorder.

METHODOLOGY

The present study was conducted at Department of Psychiatry Lady Reading Hospital Peshawar from 2004 to 2012 spanning over a period of 8 years. A total of 52 patients suffering from schizophrenia were included through consecutive sampling and were diagnosed on the basis of ICD 10 criteria¹⁶. Those suffering from mood disorder, organic or substance abuse and mental retardation were excluded.

This sample was recruited for a service aimed at treating people with severe mental illness in a resource poor setting. These patients had regular follow up to psychiatry ward once in a month. They were assessed at time of enrollment at baseline in September 2004 and now reassessed after the time period of 8 years follow up in the March 2012 in which their physical and psychological assessment as well as adherence with medication has also observed (by counting the empty blister packs and the Performa specifically made for this purpose). These patients were provided Risperidone,

Olanzapine, fluphenazine, fluoxetine and carbamazepine through hospital pharmacy. It has been made sure that medicines will be available to the patient throughout the study. Oral lorazepam was allowed sparingly for insomnia and procyclidine 5mg and propranolol were given for the treatment of extra pyramidal side effects for any length of time. Other medications without CNS effects were also allowed for medical conditions.

History of present illness and total duration of illness were documented along with the demographic details. Clinical psychologist, psychiatric nurse and trainee doctor was deputed to explain the illness to patients and key care givers so that adherence to treatment is ensured. Medicines were provided when we received empty blister packs and filled Performa of administering the drugs by key care giver.

RESULTS

The study included 52 (n=52) patients. Males were 33 (62%) and females were 19 (37%). Age of patients ranged from 15-60 with the mean age of 28.82 ± 10.67. Mean age of males was 31.08 ± 9.66 and of females was 25.84 ± 11.43. Total duration of illness of 32 patients was 1-5 years while rest of 22 patients had 6-10 years of duration. Number of visits missed during the study was 2%. Various antipsychotic medications and gender wise distribution is shown in table 1. Fifty two% of patients were stable on 4mg of risperidone per day. Fifty percent of the patients were stable on 5 to 10mg of olanzapine per day. Depot preparation was required by 38% and 38% of the patients required carbamazepine as mood stabilizers from 200 to 400mg per day. Twenty three percent of the patients required 20gm of fluoxetine per day.

DISCUSSION

The strength of this study is shown by the fact that approximately 2% of the visits were missed by patients, that too were in the initial weeks of recruitment of sample. The patience and persistence of the team of severe mental illness (SMI) and caring attitude helped to have a 98% attendance. Confidence and trust on the part of patients or key care givers on SMI team was crucial.

Table 1: Gender distribution of patients on antipsychotic medications

Antipsychotic Medications	Gender of the patients		
	Male	Female	Total
Risperidone 4mg	16	11	27(52%)
Olanzapine 5mg	9	3	12 (23%)
Olanzapine 10mg	11	6	17 (33%)
Depot preparation of Fluphenazine decanoate	12	8	20 (38%)
Carbamazepine 200-400mg	16	4	20 (38%)
Fluoxetine 20mg	8	4	12 (23%)

In the current study the maintenance dose was 4mg of risperidone for eight year. In a study by wangetal¹⁷ in a randomized controlled trial of risperidone as a maintenance treatment 374 participants were divided into three groups. The approximate time to enter into study and relapse was 571 days in 4-week group and 615 days in the 26 week group and 683 days in the no dose reduction group with estimated relapse rate of 30.5%, 19.5% and 9.4% respectively. Group one started with mean dose of 4.4mg/ day to 2.1mg/day till the end of the study in the 4th week. In second group initial dose of 4.2mgm get halved after 26 week, in the third group this was maintained at 4.3mg throughout the study. Patient in the no dose reduction group experienced marked reduction in severely of symptoms and had fewer relapses than the other groups.

Current study has similar finding in dosages though has no control group but follow up for eight years give the advantage.

In a study on consensus of anti-psychotic drugs the recommended starting dose of risperidone was 2mgs with maximum 6-8mgm and target maintenance dose of 4mg. The findings of current study are in conformity with them with additional insight into gender distribution of risperidone dosages¹⁸.

Suzuki et al studied time course of improvement with anti-psychotics in treatment resistant schizophrenia. After 4 weeks to one year improvement was stabilized in resistant schizophrenia which is observed in this study as well¹⁹.

In another study by Girgis et al, 805 individuals remained in remitted state with chlorpromazine and clozapine treatment. This is related to medication adherence, efficacy and tolerability of molecule they are taking²⁰.

In the present study, 50% of patients were stable on 5-10 mg of olanzapine. International consensus study of anti-psychotic dosing, recommend 10-20mg and median dose of 20mg olanzapine as maintenance treatment¹⁹.

A study of stable patients using PANSS based remission criteria demonstrated that nearly 70% were not in remission, 20% achieved remission when switched to depot treatment and 85% of those already in remission remained so a year later on depot treatment.

Antidepressants were used on empirical basis. Carbamazepine was used as mood stabilizer. No formal psychometric assessment was done. Those with clinical impression of moderate to severe type were put on medication while mild to moderate type of depression were manage was psycho-education. The use of 2 or more anti psychotics is also called polypharmacy²².

An evidence-based, recovery oriented and person centered treatment has demonstrated that most of schizophrenics can live meaningful life and participate as an effective citizen²³. As the disease takes long period of time and improve slowly so observational study with maintenance dose of anti-psychotics beyond one year appear logical¹³⁻¹⁵.

Adherence to medication as well as family support appears to be significant factors affecting improvement.

CONCLUSION

In this eight years follow up study with monthly examination at outpatient level the most prescribed atypical drug was resperidone with mean does of 4mg followed by olanzapine 5-10mg per day. Thirty eight percent required monthly fluphenazine decanoate for symptoms control. Carbamazepine and Fluoxetine were also used in 38% and 23% respectively.

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CONTRIBUTORS

SZ conceived the idea, planned the study, and drafted the manuscript. FDC, RMAK and KK helped acquisition of data and did statistical analysis. ZN drafted and critically revised the manuscript. All authors contributed significantly to the submitted manuscript.