

Original Article

Concomitant drug usages pattern among Schizophrenic patients of a Tertiary care Teaching Hospital in North India

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OPEN ACCESS**ABSTRACT**

Schizophrenia is a debilitating psychiatric disorder creating an economic burden on the society.along with other psychotropic drugs like anti-anxiety, mood stabilizers , lithium etc. as well as other concomitant drugs like anticholinergic , NSAIDs, beta blockers etc. These concomitant drugs not only potentiate the efficacy of antipsychoticsbut also helps in controlling specific symptoms associated with schizophrenia.^{2,3}

It was an observational, retrospective, cross sectional study carried out by department of pharmacology SGRR Institute of Medical Sciences and Department of Psychiatry, Shri Mahant Indresh Hospital,

A total of 800 schizophrenic patients information were collected from the psychiatry OPD. Most of the patients are from rural areas (53.5%). Out of 800 patients, 300 (41.25%) were males and 470 (58.75%) were females.The total no. of drugs prescribed in 800 prescriptions were 3645. This comprises 1928 (52.74%) psychotropic drugs and 1728 (47.26%) concomitant drugs.Among concomitant drugs, anticholinergics 608(35.19%) were the most prescribed drug followed by multivitamins/ supplements 405 (23.94%), beta blockers 354(20.49%), hormones 109(6.31%), NSAIDs 85 (4.86%), antacids 54 (3.13%), antihelminthic 50(2.89%), antihypertensive 37(2.14%) and others 26 (1.50%).

Majority of patients were given monotherapy. Among Anticholinergic, out of total 585 patients prescribed with anticholinergic 564 were given monotherapy and 21 were given dual therapy.

Drugs per encounter were calculated for different drugs. Anticholinergic per encounter was 0.72 which is also more as compared to Tripathi et al⁸.

Females were more in no. As compared to males and majority. Anticholinergic was the most common concomitant drug prescribed followed by multivitamins and beta blockers.

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INTRODUCTION

Schizophrenia is a debilitating psychiatric disorder creating an economic burden on the society and not only on an individual. It is a life-long disorder requiring continuous pharmacotherapy.^{1,2} The main treatment is antipsychotics along with other psychotropics drugs like anti-anxiety, mood stabilizers, lithium etc as well as other concomitant drugs like anticholinergic , NSAIDs, beta blockers etc. These concomitant drugs not only potentiate the efficacy of antipsychotics but also helps in controlling specific symptoms associated with schizophrenia.^{2,3,4}

Various studies are conducted in various parts of world as well as India to study the prescribing pattern of schizophrenia^{5,6,7,8,9} but very few studies have been done on concomitant drugs usage.^{10,11,12,22} The aim of this paper is to present the use of concomitant medication in schizophrenia. This study was done at department of pharmacology SGRR Institute of Medical Sciences and Department of Psychiatry, Shri Mahant Indresh Hospital, Dehradun.

MATERIALS AND METHOD

It was an observational, retrospective, cross sectional study carried out by department of pharmacology SGRR Institute of Medical Sciences and Department of Psychiatry, Shri Mahant Indresh Hospital, Dehradun after the approval from institutional ethical committee. Prescriptions of schizophrenic patients during the time period of Jan 2016- Dec 2016 were collected from psychiatry OPD. This was entered into a preformed format and analysed as per need.

Inclusion criteria: All genders diagnosed with schizophrenia with minimum 01 antipsychotic drug

Exclusion criteria: non consenting patients

Data was entered in Microsoft excel and analysis was carried out. Categorical data is presented as percentage (%).

OBSERVATION AND RESULT

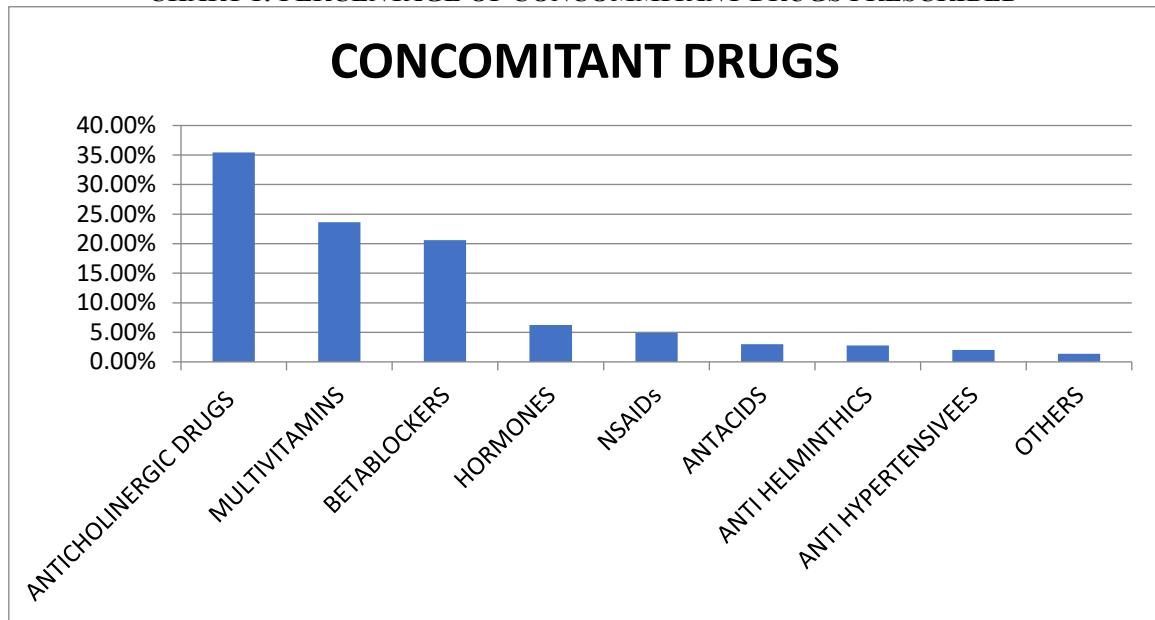
A total of 800 schizophrenic patients information were collected from the psychiatry OPD. Most of the patients are from rural areas (53.5%). Out of 800 patients, 300 (41.25%) were males and 470 (58.75%) were females.

The total no. of drugs prescribed in 800 prescriptions were 3645. This comprises 1928 (52.74%) psychotropic drugs and 1728 (47.26%) concomitant drugs. Table 1. Shows total no. of all drugs and their percentage out of total number of drug prescribed.

TABLE 1: TOTAL NUMBER OF DRUGS PRESCRIBED IN ALL PATIENTS

Total no. of drugs Prescribed (3656)		Types of drugs prescribed	Total no. of drugs	Percentage (out of total no. of drugs prescribed)
	Psychotropic drugs no. 1928 (52.74%)	Other drugs	1928	52.74%
Concomitant drugs no. 1728 (47.26%)		Anticholinergic drugs	608	16.63%
		Multivitamins/ supplements	405	11.08%
		Beta blockers	354	9.68%
		Hormones	109	2.98%
		NSAIDs	85	2.32%
		Antacid	54	1.48%
		Anthelmintics	50	1.37%
		Antihypertensives	37	1.01%
		Other	26	0.71%

Among concomitant drugs, anticholinergics 608(35.19%) were the most prescribed drug followed by multivitamins/ supplements 405 (23.94%), beta blockers 354(20.49%), hormones 109(6.31%), NSAIDs 85 (4.86%), antacids 54 (3.13%), anthelmintic 50(2.89%), antihypertensive 37(2.14%) and others 26 (1.50%). [Chart 1]

CHART 1: PERCENTAGE OF CONCOMITANT DRUGS PRESCRIBED

On calculating drugs per encounter in schizophrenia among concomitant drugs use of anticholinergic per prescription was 0.72. Anticholinergic were prescribed in 585, beta blockers in 340 and hormones in 107 prescriptions (table 2).

TABLE 2: DRUG UTILISATION PATTERN OF SOME DRUGS

DRUG UTILISATION PATTERN OF SOME DRUGS			
Drug	Anti-cholinergic (608)	Beta blockers (354)	Hormones (109)
No. of patients prescribed	585	340	107
Monotherapy	564	328	107
Dual therapy	21	12	00

DISCUSSION

Total 800 patients were analysed. Out of these females were more in no. as compared to males which is in contrast to many studies.^{8,13,14,15,16}. similar findings has been seen in Oommen et al¹⁷, Alsabhan et al,¹⁸, Javed et al¹⁹,in which females were more in number.

Total no. of drugs prescribed in 800 prescriptions was 3656 among which 52.74% was psychotropic drugs and 47.26% was concomitant drugs

Majority of patients were given monotherapy. Among anticholinergic, out of total 585 patients prescribed with anticholinergic 564 were given monotherapy and 21 were given dual therapy. Beta blockers were prescribed to 340 patients with 328 patient's monotherapy and 12 with dual therapy. Hormones were prescribed to 107 patients. Dual therapy was not given.

Anticholinergic drugs are mainly used along with antipsychotic drugs for counteracting the side effects of antipsychotic medication. Anticholinergic were prescribed in around 76% of patients, as compared to other concomitant drugs.

In a study by Hekaru Hori et al²¹, around 30.5% patients were prescribed anticholinergic. In a study by Wang et al, use of anticholinergic was 61.2% in 2019 and 2020 and 62% in 2021. This variation can be due to the difference in sample size. In total analgesics were 4.86% and antihypertensives drugs constitutes 2.14%. Which is in contrast to and way less than wang et al¹².

Drugs per encounter were calculated for different drugs. Anticholinergic per encounter was 0.72 which is also more as compared to Tripathiet al⁸.

CONCLUSION

Schizophrenia is a complex disorder and using antipsychotic medications alone cannot help in management of schizophrenia. to manage the adverse effects caused by antipsychotic drugs or to potentiate there action, concomitant drugs are used. But the total number of medication in a prescription should not exceed much as it may hamper the compliance of patient²¹. In our study, psychotropic drugs were 52.74% and concomitant were 47.26%. Females were

more in no. as compared to males and majority. Anticholinergic was the most common concomitant drug prescribed followed by multivitamins and beta blockers.

Limitations: There are certain limitations to this study .Being a unicentric study the result can't be applied to majority of population. There is no data on adverse drug reaction caused by these drugs as no follow up was done. No detail data on drugs is available. No IPD patients were included.

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Conflict of Interest: There is no conflict of interest.

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