Pattern of adherence to antihypertensive medication among hypertensive patients

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Abstract

Introduction: Hypertension is a common chronic health condition, very common globally. It is associated with many complications. Different treatment options are available for hypertension which, may be in the form of medicines, meditation, yoga, salt restriction and dietary change. A medication's success in producing the desired benefit depends on a person's adherence with the therapeutic regimen. The World Health Organization (WHO) describes poor adherence as the most important cause of uncontrolled blood pressure and estimates that 50% of people do not take their antihypertensive medication as prescribed. Objectives of this study were to assess the adherence to antihypertensive therapy and also to elicit the determinants of poor adherence among hypertensives in Indian population.

Materials and Methods: An observational, cross-sectional, descriptive study was conducted among hypertensive patients attending the OPD during the study period in Govt. Medical College, Jammu, India

Results: Total 130 hypertensive patients were included in study. Out of 130 patients 76(58.46) were females and rest 54(41.53%) were males. Out of 130 patients, 80(61.53%) patients were taking multiple drug therapy and 50(38.46%) patients were taking monotherapy. Only 30(23.07%) patients were using antihypertensive medicine regularly while rest 100(76.92%) patients were irregularly using the medicines. Different patients expressed different reasons for not taking the medicines regularly. 12% of the patients said that lack of money to buy medicine was the reason for not taking it regularly, another 11% said that dissatisfaction with the treatment was the reason for same, 13% experienced side effects and said that is the reason for irregular use of medicine, 6% said busy schedule is the reason for the same. 10% of the patients said disbelief in efficacy of drug was the reason for irregular use, another 10% were using alternative therapy for same purpose and irregularly used the drug. 15% of the patients told polypharmacy was the reason, 7% of the patients told that they don't think it's important to take medicine and 2% said that the same salt of medicine is sometimes unavailable in the market and they miss their daily dose of drug.

Conclusion: Advocacy of adherence to antihypertensive drugs should be inculcated in each and every hypertensive patient along with regular and uninterrupted drug supply and high quality health care service in all health care organisations where health education and counselling gets the highest priority.

Keywords: Hypertension, Adherence, Antihypertensive drugs.

Introduction

Hypertension is very prevalent and its incidence is increasing globally.[1] About 970 million people suffer from hypertension and this is estimated to reach upto 1.5 billion by 2025.[2] Hypertension is associated with many complications which may be microvascular or macrovascular. Many treatment options are available which may be pharmacological, dietary, alternative therapy like acupressure and life style modification. Poor adherence to treatment is a global problem identified by World Health Organisation and it is seen that 50-70% of the patients do not take their medicines as prescribed.[3,4] Adherence to treatment is the key to medical therapy success. Developing countries like India has been identified as a nation with poor adherence of patients to medications especially in case of chronic diseases. Reasons are identified to be variable but very few studies have been done to see the adherence pattern to antihypertensive medicines as per review of literature. Medication process can be defined as a process by which a patient takes medicines as prescribed.[5] Various studies have shown that poor adherence to medication is a prime reason for poor Blood pressure control.[6-8] Poor adherence is responsible for unnecessary over prescription of drugs, substantial worsening of diseases, increased hospital admission rates and longer hospital stays all leading to a significant medical burden such as reduced optimal clinical benefit and increased risk of cardiovascular events.[9-11] Additionally, findings in clinical practice have raised issues about under treatment and non-adherence to antihypertensive treatment hampering the effectiveness of the medications.[12] Poor adherence can either be at the time of start of administration of medicine, implementation or persistence. For the management of hypertension effectively, proper adherence to medication is the central point. Many complications can be reduced by controlling blood pressure effectively.[13] There are various factors that affect a hypertensive patient's behavior regarding adherence to antihypertensive treatments. Knowledge about hypertension and treatment, socio-demographics, beliefs about treatment patient-provider relationship and the support received from healthcare services are the factors that affect hypertensive patient's adherence.[14] Identifying factors that affect medication adherence is the first step towards improving adherence. [15]

Aims and Objectives

To see the adherence pattern of antihypertensive medicines among hypertensive patients

Materials and Methods

The present study was conducted in Medicine Outpatient Department of Govt. Medical College, Jammu after due

permission from Institutional Ethics Committee, Govt. Medical College, Jammu vide order no. IEC/Pharma/Res/I7C/2018/593. The study was conducted in March 2019 for a period of one week and the hypertensive patients visiting Medicine OPD were included. It was a cross sectional study. A prevalidated and pretested questionnaire comprising of questions regarding adherence pattern of antihypertensive drugs was circulated among the patients in vernacular language after describing them the purpose of study. Total 130 patients were included in study. They were given a time period of 15 minutes to fill the questionnaire. The data was collected and analysed. The data was presented in tabulated form. The data was expressed in percentage.

Inclusion Criteria

Hypertensive patients already taking medicines were included.

Exclusion Criteria

Newly diagnosed hypertensive patients were not included

Results

Total 130 hypertensive patients were included in study. Demographic profile was seen. Out of 130 patients 76(58.46) were females and rest 54(41.53%) were males. Out of total 130 patients, 35(26.92%) were retired from services, 25(19.23%) were farmers and skilled workers, 26(20%) had retired from govt. service, 14(!0.78%) had their own business and 30(23.07%) were home makers. Maximum of the patients had co-morbidities associated. Some of the patients had more than one co-morbidities associated. Obesity was most common comorbidity found in 40(30.76%) patients, followed by diabetes in 35(26.92%) patients, hypercholestrenemia in 27(20.76%) patients, heart problem in 15(11.54%) patients, rheumatoid arthritis and hypothyroidism in 10(7.69%) patients each, gastritis in 13(10%) patients and stroke in 4(3.07%) patients and miscellaneous in 5(3.84%) patients (Table 1). Out of 130 patients, 80(61.53%) patients were taking multiple drug therapy and 50(38.46%) patients were taking monotherapy. Out of 80 patients taking polypharmacy, 50(38.46%) patients were taking multiple drug therapy and 30(23.07%) patients were taking Fixed Dose Combination (FDCs). Total 24 patients were taking alternative and complementary medicines. 15(62.5%) patients were using herbal drugs, 2(8.3%) patients were doing acupuncture technique, 7(29.16%) patients were practicing yoga (Table 2). Only 30(23.07%) patients were using antihypertensive medicine regularly while rest 100(76.92%) patients were irregularly using the medicines. Different patients expressed different reasons for not taking the medicines regularly. 12% of the patients said that lack of money to buy medicine was the reason for not taking it regularly, another 11% said that dissatisfaction with the treatment was the reason for same, 13% experienced side effects and said that is the reason for irregular use of medicine, 6% said busy schedule is the reason for the same. 10% of the patients said disbelief in efficacy of drug was the reason for irregular use, another 10% were using alternative therapy for same purpose and irregularly used the drug. 15% of the patients told that polypharmacy was the reason for irregular intake of medicine, 7% of the patients told that they don't think its important to take medicine and 2% said that the same salt of medicine is sometimes unavailable in the market and they miss their daily dose of drug (Table 3).

Discussion: Maximum hypertensive patients in our study were females as in other studies. [16,17] most common co-morbidity associated was obesity followed by diabetes, hypercholestrenemia and others as in other studies. [17,18] Maximum of the patients were not adherent to regular medicine intake in present study as many other studies. [17,18,19] These results are contrary to results of many studies.[20-24] The reasons for non adherence were multiple as same as documented in other studies. 15% of the patients told that polypharmacy was the reason for irregular intake of medicine[25-27]. In polypharmacy patients tend to avoid taking some of the prescribed medicines. So it should be stressed upon to prescribe single pill or Fixed dose combination for better compliance and adherence to medication in hypertensive patients. 12% of the patients said that lack of money to buy medicine was the reason for not taking it regularly. In developing country like India, affordability is a major concern. This is in accordance with other studies in which non availability of free medicines from Govt. dispensary was the reason for non adherence.[28] So, drugs of common diseases like hypertension should be available free of cost or at subsidized rates at Govt. hospitals or dispensaries. Another 10% were using alternative therapy for same purpose and irregularly used the drug as in study by Roshi et al.[29] 2% said that the same salt of medicine is sometimes unavailable in the market and they miss their daily dose of drug in accordance with the study of CJ Navya.[18] Many a times the pharmacist gives the substitute of the prescribed salt which may not be as efficient as the original one as efficacy changes with change in the brand.

Table 1: Demographic profile of patients

Parameter	Number of patients (Percentage)
Gender	
Males	54 (41.53%)
Females	76 (58.46%)
Employment status	
Business	14 (10.78%)
Govt. service	26 (20%)

Retired	35 (26.92%)
Farming and other skill workers	25 (19.23%)
Home makers	30 (23.07%)
Educational status	
Educated	30
Non educated	100
Co-morbidities	
Diabetes	35 (26.92%)
Hypothyroidism	10 (7.69%)
Obesity	40 (30.76%)
Hypercholestrenemia	27 (20.76%)
Heart problem	15 (11.54%)
Rheumatoid arthritis	10 (7.69%)
Gastritis	13 (10%)
Stroke	4 (3.07%)
Miscellaneous	5 (3.84%)

Table 2: Showing Information about medicines being consumed

Overall Medicines taken by patient	
Monotherapy	50(38.46%)
Polypharmacy	80(61.53%)
Polypharmacy	
Multiple drug therapy	50(38.46%)
Fixed Dose Combination	30(23.07%)
Alternative and complementary medicine	
Herbal drugs	15(62.5%)
Acupuncture	2(8.3%)
Yoga	7(29.16%)

Table 3: Showing pattern of adherence to antihypertensive medication and reasons for non adherence

Regular use of medicine	30(23.07%)
Irregular use of medicine	100(76.92%)
Reasons for not taking medicine	
Forgetfulness	14
Lack of funds	12
Busy schedule	6
Experiencing side effects	13
Disbelief in efficacy of drugs	10
Dis satisfaction with treatment	11
Using alternative therapy	10
Not thinking important to take medicine regularly	7
Non availability of the same medicine in market	2
Polypharmacy	15

Conclusion

It is important to advocate the need of properly taking the medication at appropriate time and dose to control hypertension. The current study highlighted some of the determinants of not taking medication properly. Keeping all these factors into consideration, policy should be made accordingly so that there is good compliance and better control of Blood pressure and indirectly prevention of complications.

Conflict of Interest: None.

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