

Use of Anxiolytic with Antihypertensive
Drugs in a Tertiary Care Hospital

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Abstract

Objectives: The present study was conducted to see the use of prescribing pattern of anxiolytic with antihypertensive drugs in a tertiary hospital. **Methods:** It was an observational type of cross sectional study. The study was performed among hypertensive patients (both indoor and outdoor) of Cardiology department in MMCH who received antihypertensive drugs. **Results:** Out of 400 hypertensive patients 67% were male and 33% were female. Mean age of the patients was 55.02 ± 12.47 years. Systolic BP was 146.74 ± 28.28 and diastolic BP was 90.60 ± 14.27 and the highest percentage of patient were found in Stage 2 HTN (50.25%) according to JNC-7 guidelines. In our study 5 groups of antihypertensive were prescribed (ARB, ACEI, BB, Diuretics, and CCB). It was found in this study that out of 400 prescription anxiolytic used in 242 prescription that was 60.50%. **Conclusion :** Clonazepam was the most commonly used anxiolytic that was 186 (76.90%) and 2nd most common anxiolytic was Bromazepam 50 (20.70%).

Date received: 12 Sep 2023

Date accepted: 10 Oct 2023

Keywords: Antihypertensive drugs, anxiolytic

Introduction

Maduram 2013 conducted a study on prescription pattern of antihypertensive drugs in Shrisathyasai Medical College & research institute and described high blood pressure, termed "hypertension," is a condition that afflicts almost 1 billion people worldwide and is a leading cause of morbidity and mortality. Therefore, this disease is sometimes called the "silent killer." This disease is usually asymptomatic until the damaging effects of hypertension (such as stroke, myocardial infarction, renal dysfunction, visual problems, etc.) are observed. Hypertension is a major risk factor for coronary artery disease, myocardial infarction ("heart attacks") and stroke.(1)

From the estimated prevalence of hypertension would increase from 26.4% in 2000 to 29.2% in 2025. Hypertension (HTN) is one of the major chronic diseases resulting in high morbidity and mortality in the world population. Prevalence of HTN in India is reported to vary from 4-15% in urban and 2-8% in rural population. Socioeconomic, behavioral, stressful lifestyle and nutritional issues of the people led to enormous increase of cardiovascular diseases. HTN and Diabetes Mellitus (DM) frequently coexist which increases with age. HTN is about twice as common in patients with DM as in those without (8%). More specifically, it has been reported that individuals with blood pressure values of 130-139/85-89 mmHg were significantly in higher risk of developing cardiovascular diseases compared to subjects with lower blood pressure (2).

Report 2002 of the World Health Organization (WHO) states that high blood pressure is the primary or secondary cause of 50% of all cardiovascular diseases worldwide. Hypertension is an important risk factor for cardiovascular accidents, coronary heart disease and cardiac hypertrophy with heart failure, aortic dissection, and renal failure. The worldwide burden of hypertension in 2000 was estimated to be 972 million or 26.4% of the adult world population, with 333 million in economically developed and 639 million in economically devel-

oping countries. It has been estimated that by 2025, 1.56 billion individuals will have hypertension; an increase of 60% from 2000. Most of this rise can be attributed to an expected increase in the number of people with hypertension in economically developing countries (3).

Therefore, the prevention, detection, treatment and control of this condition demand high priority (3). Management of hypertension is an important step to decrease the mortality and morbidity of cardiovascular disease and to prevent uncontrolled complications (4).

It is well understood that emotional reactivity and anxiety is associated with increased risk of hypertension where support management of anxiety is crucial in hypertensive patient (the role of anxiolytics in hypertensive urgency management) (5). Anti-anxiety treatment is effective in lowering BP in patients with excessive hypertension. Thus, anxiolytic treatment may be considered in patients with excessive hypertension without acute target organ damage (6).

Materials and Methods

This study was a record based observational type of descriptive cross-sectional study was conducted for a period of 6 months from July 2015 to December 2015 in Cardiology department of Mymensingh Medical College Hospital, Mymensingh. 400 patient were collected from both indoor and outdoor. This study includes hospital In-patients and Out-patients with hypertension with or without IHD and DM treated for hypertension at Cardiology department. The inclusion criteria were: Patient with the age group ≥ 18 years, hypertension with or without ischemic heart disease, hypertension with or without DM. Exclusion criteria were: patients with disease like hepatic disease and pregnancy. Non-Random sampling was employed for

collecting data. The entire relevant data were analyzed with the aid of Statistical Package for Social Sciences (SPSS) version 21 software to generate descriptive statistics. The data collected was analyzed with frequency, simple percentage, mean and standard deviation. The results presented in texts, tables and figures.

Observations and Results

Out of 400 patients, 268 (67%) were male and 132 (33%) were female. So, male were found more than their female counterparts.

Table 1: Demographic Characteristics (age) of Patient

Demographic Characteristics	Male	Female	Total
Mean age (years)	56.45	52.12	55.02
Standard deviation	12.20	12.58	12.47
Minimum age (years)	20	25	20
Maximum age (years)	90	90	90

Table 6.20: Frequency of using anxiolytic with antihypertensive

Use of anxiolytic	Frequency	Percentage
Used	242	60.50
Not used	158	39.50
Total	400	100

Table 6.21: Pattern of using anxiolytic

Name of anxiolytic	Frequency	Percentage
Clonazepam	186	76.9
Bromazepam	50	20.70
Alprazolam	04	1.65
Diazepam	01	0.41
Clobazam	01	0.41
Total	242	100

Observations and Results

Table 6.20 & 6.21 show that out of 400 prescription anxiolytic used in 242 prescription that was 60.50%. Clonazepam was the most commonly used anxiolytic that was 186 (76.90%). Other anxiolytic prescribed in our study were Bromazepam, Alprazolam, Diazepam, Clobazam and their no. & percentage in our study were 50 (20.70%), 04 (1.65%), 01 (0.41%), 01 (0.41%) respectively. All of them belongs to Benzodiazepine group.

Discussion

The study was conducted during the period of July 2015 to June 2016 in the department of Cardiology, Mymensingh Medical College Hospital, Mymensingh to evaluate the use of anxiolytic with antihypertensive in hypertension with or without ischemic heart disease and DM at Cardiology Department. It was an observational type of descriptive cross sectional study.

In this study the prevalence of hypertension was seen more in male (67%) than their female counterparts (33%) which corresponds to the findings of other studies Joseph S, Varghese N & Thomas L (3), Konwar M, Paul PK & Das S (7) and Rachana PR, Anuradha HV & Shivamurthy MC (8).

In our study mean age of the patients was 55.02 ± 12.47 years. A study in New Delhi, India done by Sharma AK, Dahiya N, and Kairi JK et al. and found the mean age of the patients was 58.25 years which was similar to this study (9). Another study conducted by Madhwar A, Gupta D, and Singh S et al. (10) and found the mean age of the patients was 58.9 ± 11.9 years which was also similar to the present study.

It was found in this study that out of 400 prescription anxiolytic used in 242 prescription that was 60.50%. Clonazepam was the most commonly used anxiolytic that was 186 (76.90%) and 2nd most common anxiolytic was Bromazepam 50 (20.70%). Muhit et al. (2012) conducted a study in Bangladesh and described the physician's prescribed anxiolytic drugs for 81.41% cases and most common anxiolytic drugs reported in their study was benzodiazepine groups. Bromazepam (62.52) was preferred by most of the physicians. Clonazepam (24.72%) and diazepam (10.39%) were also prescribed to the patients which was dissimilar to this study (11).

Paštrović F et al conducted a study in Croatia & found majority of Patient with hypertension received benzodiazepine group of anxiolytic drugs (12). Grossman E et al. conducted a study about antianxiety treatment in patients with excessive hypertension & found antianxiety treatment is effective in lowering BP in patients with excessive hypertension (6).

Conclusion

Hypertension is a chronic incurable disease. Maintaining the control of blood pressure is very important in HTN. From our study it was concluded that HTN is more prevalent in male than female & Mean age of the patients was 55.02 ± 12.47 years out of 400 prescription anxiolytic used in 242 prescription that was 60.50%. Clonazepam was the most commonly used anxiolytic that was 186 (76.90%). Thus,

anxiolytic treatment may be considered in patients with hypertension without acute target organ damage. Further large placebo controlled studies are required to prove the benefit of anxiolytic agents.

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