Original Research Article

Epidemiological and clinical profile of hypertensive patients came in Dhiraj General Hospital

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Abstract

Background: Hypertension is the one of the important disease of the world and increases the risk of coronary heart disease (CHD), ischemic heart disease (IHD), stroke, peripheral vascular disease, and renal failure etc.

Aim: To study the Epidemiological and clinical profile of hypertensive patient came in Dhiraj General Hospital, Vadodara.

Materials and methods: This was a descriptive cross sectional study of the patients who came in medicine OPD of Dhiraj General hospital in a period from Janurary 2017 to April 2017. Data related to patients were collected with standard questionnaire performa and blood pressure was measured twice during medical visit with the help of manual mercury column sphygmomanometer. Information of patients relating to epidemiological features (age, sex, place of residence), blood pressure levels, cardiovascular risk factors (diabetes, dyslipidemia, family history of early coronary heart disease, smoking, alcoholism) were noted.

Results: There were total 175 patients registered, out of these 124 (70.85%) were male and 51 (29.14%) were female. The age range was 18 years to 100 years. Out of 175 patients, 6.85% were professionals, 32.57% were belonging from low social class. In 175 patients 8.9% had diabetes, 16% had dyslipidemia, 12.5% smoked cigarettes, 15.4% had history of tobacco abuses and 7.45% had given a history of alcohol intake. Family history was present in 19.42% cases.

Conclusion: Hypertension is a significant health problem in our society and more common low socioeconomic class. Effort should be made to create hypertension awareness; life style changes, de-addiction and need for regular blood pressure check up should be emphasized in society tries to keep a good control on hypertension through regular and adequate medication through medical advice.

Key words

Epidemiology, Clinical profile, Hypertension.

Introduction

Hypertension is the one of the important disease of the world and increases the risk of coronary heart disease (CHD), ischemic heart disease (IHD), stroke, peripheral vascular disease, and renal failure etc. [1]. Hypertension problem progressively increase with age. Hypertension is the 3rd most common risk factor for burden of disease in the south Asia [2]. This is generally asymptomatic at early stage and came to knowledge when some complication develops which leads to decrease in quality of life and increases mortality rates. According to WHO, in India 20.6% of men and 20.9%% of women suffering from hypertension [3]. It will increase up 22.9% and 23.6% for men and women respectively by 2025 [4]. Sometimes Hypertension is not controlled by single drug & requires multiple drugs .Only 25.6% of treated patient had their BP under control [5]. In India 57% of all stroke death and 24% of all coronary heart disease are caused by hypertension [6].

Aim

To study the Epidemiological and clinical profile of hypertensive patient came in Dhiraj General Hospital, Vadodara.

Objectives

- Analysis the risk factor and co-morbidity associated with hypertension.
- Study of cardiovascular risk profile.
- Need and Compliance of treatment in order to improve the quality of patient life.

Materials and methods

This was a descriptive cross sectional study of the patients who came in medicine OPD of Dhiraj General hospital in a period from Janurary 2017 to April 2017. Data related to patients were collected with standard questionnaire performa and blood pressure was measured twice during medical visit with the help of manual mercury column sphygmomanometer. Information of patients relating to epidemiological features (age, sex, place of residence), blood pressure levels, cardiovascular risk factors (diabetes, dyslipidemia, family history of early coronary heart disease, smoking, alcoholism) were noted. Target organ damage such as left ventricular hypertrophy (electrocardiographic and/or echo-cardiographic criteria), coronary heart disease(angina and/or myocardial infarction), heart failure (clinical and/or echo-cardiographic criteria), cerebrovascular disease(stroke and/or history of transient ischemic attack), hypertensive retionopathy, nephropathy, and peripheral arterial disease were evaluated with the help of other department and standard laboratory test. Therapeutics regimens were decided after all these evaluation and compliance with treatment were noted. Ethical approval was taken from ethical committee of Sumandeep Vidyapeeth University.

Results

There were a total 175 patients registered, out of these 124 (70.85%) were male and 51 (29.14%) were female. The age range was 18 years to 100 years. **Table - 1** shows incidence of hypertension increases with age and was peak in 6th decade followed by 5th and 7th decade. Out of 175 patients, 6.85% were professionals, 32.57% were belonging from low social class (**Table - 2**).

TABLE-1.AGE & SEX DISTRIBUTION OF PT WITH HYPERTENSION

AGE	MALE	FEMALE	TOTAL
18-30	05	04	09(5.4%)
31-40	16	05	21(21%)
41-50	29	20	49(28%)
51-60	39	13	52(29.7%)
61-70	29	06	35(20.1%)
71-80	06	03	09(5.14%)
>81yr	00	00	00
TOTAL	124(70.85%)	51(29.14%)	175

TABLE 2-HYPERTERNSION INCIDENCE IN DIFFERENT SOCIAL CLASS

	MALE	FEMALE	TOTAL
Professional(DOCTOR, ENG,LAWER etc)	10	02	12(6.85%)
Managerial Worker	29	02	31(17.71%)
Worker	40	05	45(25.71%)
Farmer,traders,	45	12	57(32.57%)
House wife,unemployed	0	30	30(17.14%)

Most of the patients came here are diagnosed in hypertensive stage 1 (**Table - 3**).Some patients were diagnosed first time here, some patients were on irregular treatment and some patients of stage 2 were on two or more drug combination.

Risk of hypertension increases with higher BMI (Body Mass Index). In Our study all patients with higher were suffering from hypertension (**Table - 4**).

TABLE 3-STAGES OF HYPERTENSION

STAGE OF HTN	MALE	FEMALE	TOTAL
Stage-1	108	16	124(66.8%)
Stage-2	39	12	51(27.4%)
TOTAL	147(84%)	28(16%)	175

TABLE 4-PREVALENCE OF HYPERTENSION IN DIFFERENT BMI GROUP

BMI	MALE	FEMALE	TOTAL
18.5-24.9	101	20	121(69.14%)
25.0-29.9	26	7	33(18.8%)
30.0-34.9	08	04	12(6.8%)
35.0-39.9	4	2	06(3.4%)
>40	2	1	03 (1.7%)

TABLE 5-DISEASE ASSOCIATION

	MALE	FEMALE	TOTAL
Diabetes	09	05	14(8.9%)
Thyrodism	02	04	06(3.4%)
Dyslipidemia	22	06	28(16%)
Asthama	05	03	08(4.5%)
Smoking	20	02	22(12.5%)
Alchoholism	13	00	13(7.4%)
Tobaco	25	02	27(15.4%)
Family History	26	08	34(19.42%)
TOTAL	122	30	152

TABLE 6-COMPLICATION ASSOCIATED WITH HYPERTENSION

	MALE	FEMALE	TOTAL
Renal failure	7	2	9(5.1%)
Heart failure	11	3	14(8.0%)
Stroke	21	4	25(14.2%)
IHD/MI	17	2	19(10.8%)
Retinopathy	09	04	13(7.42%)

In 175 patients 8.9% had diabetes, 16% had dyslipidemia, 12.5% smoked cigarettes, 15.4% had history of tobacco abuses and 7.45% had given a history of alcohol intake. Family history was present in 19.42% cases (**Table – 5**).

Cerebrovascular disease was more common in 14.2% cases while followed by ischemic heart disease (10.8%), heart failure (8%), and hypertensive retionopathy (7.42%). Complications were more common in those patients who have poor drug compliance (38%) or blood pressure was not under control after taking treatment (18%) as per **Table - 6**.

Discussion

Hypertension incidence increase with age and it is more associated with increase BMI [7-10]. Higher BMI are more commonly associated with hypertension [11, 12]. It is also more common in low socioeconomic group may be due to poor diet, lack of access to health facilities, stressful life. Family history of cardiac disease, Diabetes (8.9%), dislipidemia (16%), asthma (4.5%) is associated with hypertension. Tobacco use, smoking and alcohol abuse are major risk factor associated with hypertension. Hypertension control was poor if risk factor was more [13-15]. This was also common if patients were associated with some co-morbidity or taking more drugs. Compliance was also poor if patients were taking more number of drugs. The most common complication associated with hypertension was stroke, cardio vascular disease, heart failure and renal failure. These complications are more commonly associated with avoiding drug therapy for long time, poor blood pressure control and poor drug compliance. These also decreases quality of life and increases morbidity [16-19].

Conclusion

Hypertension is a significant health problem in our society and more common low socioeconomic class. Effort should be made to create hypertension awareness; life style changes, de-addiction and need for regular blood pressure check up should be emphasized in society tries to keep a good control on hypertension through regular and adequate medication through medical advice. There should also regular Screening for target end organ damage be done in hypertensive patients.

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