



EPIDEMIOLOGICAL AND CLINICAL PROFILE OF HYPERTENSIVE PATIENTS ATTENDING UHTC,IGIMS,PATNA

Community Medicine

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ABSTRACT

Background: Hypertension is the one of the important and common noncommunicable disease 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 to UHTC ,IGIMS ,Patna Materials and methods: It is a descriptive cross sectional study of the patients who came to OPD of UHTC, IGIMS, Patna in a period from January 2019 to April 2019. 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 related to epidemiological features (age, sex, place of residence), blood pressure levels, cardiovascular risk factors (diabetes, dyslipidaemia, 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 dyslipidaemia, 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 modification, avoid tobacco smoking 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.

KEYWORDS

Epidemiology, Clinical profile, Hypertension.

Introduction

Hypertension is a chronic condition and it is 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]. It is the commonest cardiovascular disorder posing major public health challenge to population in socioeconomic and epidemiological transition it is one of the major risk for cardiovascular mortality which accounts for 20 to 50 percents of all death. 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]. Hypertension is classified as primary(essential) and secondary, hypertension is classified as essential when causes are unknown. Hypertension is classified as secondary hypertension when it associated with some disease or abnormality of organ system among these prominent diseases are kidney disease (glomerulonephritis and pyelonephritis) tumour of adrenal gland, congenital narrowing aorta and renal artery, toxemia of pregnancy. Essential hypertension is most prevalent form of hypertension.

Aim and Objectives

To study the Epidemiological and clinical profile of hypertensive patient came in UHTC IGIMS Patna. Study and analysis of risk factor, co morbidity associated with hypertension.

Materials and methods

This was a descriptive cross-sectional study of the patients who came in OPD UHTC IGIMS Patna in a period from January 2019 to April 2019. 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, dyslipidaemia, family history of early coronary heart disease, smoking, alcoholism) were noted. Target organ damage such as left ventricular hypertrophy (electrocardiographic and/or echocardiographic 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 retinopathy, 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.

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). Most of the patients came here are diagnosed in Risk of hypertension increases with higher BMI hypertensive stage 1 (Table - 3). Some patients (Body Mass Index). In Our study all patients were diagnosed first time here, some patients with higher were suffering from hypertension were on irregular treatment and some patients of stage 2 were on two or more drug combination 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 retinopathy (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.

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-HYPERTENSION 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%)

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%)
Thyroidism	02	04	06(3.4%)
Dyslipidemia	22	06	28(16%)
Asthma	05	03	08(4.5%)
Smoking	20	02	22(12.5%)
Alcoholism	13	00	13(7.4%)
Tobacco	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%)

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%), dyslipidaemia (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.

REFERENCES

- Harrison's Text book of Internal Medicine, 19th Edition, Mc-Graw Hill, 2015.
- Lim SS, Vos T, Flaxman AD, Danaei G, A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factors clusters in 21 region, 1990-2010, A systematic analysis for the Global burden of disease Study 2010. *Lancet*, 2012; 380: 2224-2260.
- API Text book of Medicine, 9th edition, JPB, 2012.
- Kearney PM, Whelton M, Reynolds K, Muntner P, He J. Global burden of Hypertension. Analysis of worldwide data. *Lancet*, 2005; 365: 217-223.
- Gupta R. Trends in Hypertension epidemiology in India. *J Hum Hypertens.*, 2004; 18: 78.
- Hypertension Study Group Prevalence, awareness treatment and control of Hypertension among the elderly in India and Bangladesh: a multicentre study. *Bull World Health Organ*, 2001; 79: 490-500.
- Das SK, Sanyal K, Basu A. Study of Urban community survey in India; growing trend of high prevalence of hypertension in a developing country. *Int J Med Sci.*, 2005; 2: 70-78.
- Devi P, Rao M, Sigamani A, faruqui A, Jose M, Gupta R, et al. Prevalence, risk factors and awareness of hypertension in India: a systemic review. *J Hum Hypertens.*, 2013; 27: 281-287.
- Gupta S, Kapoor, S. Sex differences in blood pressure levels and its association with obesity indices: who is at greater risk. *Ethn Dis.*, 2010; 20: 370-375.
- Reddy KS, Prabhakaran D, Jeemon P, Thankappan KR, Joshi P, Chaturvedi V, et al. Educational status and cardiovascular risk profile in Indians. *Proc Natl Acad Sci U S A*, 2007; 104: 16263-16268.
- Chobanian AV. The Seventh Report of the Joint National Committee on prevention, Detection, Evaluation, and treatment of High Blood pressure. *Hypertension*, 2003; 42: 1206.
- Klatsky A L, et al. Alcohol consumption and blood pressure. *NEJM*, 1977; 296: 1194-1198.
- Hansen K W, et al. Night blood pressure and cigarette smoking: disparate association in healthy subject and diabetic patient. *Blood pressure*, 1994; 3(6): 381-383.
- Larstorp AC, et al. Changes in Electrocardiographic left ventricular hypertrophy and risk of major cardiovascular events in isolated systolic hypertension. *J Hum Hypertens.*, 2011; 25(3): 178-85.
- Whitworth JA. Blood pressure and control of cardiovascular risk. *Vasc Health Risk Manag.*, 2005; 1(3): 257-260.
- Malhotra P, Kumari S, Kumar R, Jain S, Sharma BK. Prevalence and determinants of hypertension in an unindustrialised rural population of North India. *J Hum Hypertens.*, 1999; 13: 467-472.
- Gurav RB, Kartikeyan S, Jadhav BS. Biochemical profile of hypertensive individuals in an urban community. *Indian J. Med Sci.*, 2001; 55: 663-668.
- Gupta R, Deedwania PC, Achari V, Gupta BK, Gupta A, et al. Normotension, prehypertension, and hypertension in urban middle-class subjects in India: prevalence, awareness, treatment, and control. *Am J Hypertens.*, 2013; 26: 83-94.
- Samuel P., Antonisamy B, Raghupathy P, Richard J, Fall CH. Socioeconomic status and cardiovascular risk factors in rural and urban areas of Vellore, Tamil Nadu, South India. *Int J Epidemiol.*, 2012; 41: 1315-1327.