



The Incidence and Prevalence of Hypertension in Patients Attending OP of Annapoorana Medical College and Hospital, Salem

Authors

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Abstract

Hypertension is a major health problem which affects most of the people in the world and it needs so importance because it causes major risk factors which cause various complications.

Objectives

1. To know the incidence and prevalence of hypertension.
2. Assessment of patient's knowledge, attitude and practice regarding hypertension.

Materials and Method: The study is to be conducted among the patients attending op of annapoorana medical college and hospital, salem, spread over three month April –June 2019. A total of 200 patients could be studied over this period. The aim of this study was to explore the prevalence and awareness of hypertension A suitably designed and validated KAP questionnaire was administered to hypertensive patients. This questionnaire was filled in at face to face interview along with inform consent Results. Around 18.2% of patients using tobacco are hypertensive. Person more than 35 years are hypertensive than those less than 35 years.

Conclusion: There is significant burden of hypertension in areas around annapoorana medical college and hospital, salem. Independent risk factors of hypertension are age, education, and levels of cholesterol. The patient should be educated about the importance of the physical activity.

Keywords: Hypertension, KAP.

Introduction

Hypertension is a health problem in majority of the public due to its increase prevalence all around the globe. Around 8 million deaths or 13.8% of the total of all deaths which occur in the world due to high blood pressure. It is obvious that it increase to 1.56 billion adults with hypertension in 2030. Raised blood pressure is a major risk factor for chronic heart disease, stroke, and coronary heart disease. Elevated BP is the risk factor of stroke and coronary heart disease. Other than coronary heart disease and stroke, its complications include heart failure, peripheral

vascular disease, renal impairment, retinal hemorrhage, and visual impairment.

Non communicable diseases, especially Coronary Artery Disease (CAD) including hypertension is a major risk factor that accounts for almost 45% to 50% of deaths CAD are nowadays increasingly seen in working people in age group of 30-65 years. Blood pressure is the single most useful test for identifying individuals with CAD. Studies in the past show a prevalence of hypertension to be 4-8% in adults and a little higher in urban population 16.6%. Such a high morbidity and mortality has generated concerns among general population.

Blood pressure generally tends to rise with age. Heredity and obesity also play a important role in the development of hypertension. The common modifiable risk factors for hypertension is due to consumption of high fat and sedentary life style, smoking, alcoholism, stress, etc. These factors are related to each other such that appearance of one factor paves the way for CAD. Therefore prevention of primary risk factors and its early diagnosis and treatment will delay non-communicable diseases and CAD. In India according to current trends number of deaths by non-communicable diseases would increase from 4.8 million in 1990 (45% of all deaths) to 8.5 million in 2020 (73% of all deaths).

Objectives

1. To know the incidence and prevalence of hypertension among the patients attending annapurna medical college and hospital salem.
2. Assessment of patient’s knowledge, attitude and practice regarding hypertension.

Materials and Method

The study is to be conducted among the patients attending op of annapoorana medical college and hospital, salem spread over three month April – June 2019. A total of 200 patients could be studied over this period. The subjects were interviewed and clinical examination was done including measurement of blood pressure, height and weight, after obtaining their consent. Blood

pressure was measured by mercury sphygmomanometer. Two readings were taken at an interval of 10-15 minutes and the lower reading was considered for the purpose of this study. Height in centimeters and weight in kilograms was measured with standard clothing. According to JNC 7 criteria, if systolic BP is >140 or equal to 140 mm hg or if diastolic BP >90 or equal to 90mm hg or if already on anti-hypertensive treatment was considered to be hypertensive. The aim of this study was to find the prevalence and awareness of hypertension.

A total of 200 hypertensive patients with or without comorbid condition were included. Adults of age more than 30 years were selected and this study was done by simple random sampling method. To find out whether the patient are aware of complication of uncontrol hypertension. A total of 21 questions were framed, with 8 questions related to knowledge about hypertension, 6 questions to assess the attitude of the patient towards hypertension and 7 questions regarding practice.

	SBP (mmHg)	DBP (mmHg)
Normal	<120	<80
Prehypertension	120-139	80-89
Stage 1	140-159	90-99
Stage 2	>160	>100

JNC-7, the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

Analysis

Table .1 Sociodemographic characteristics of the study subjects.

Variable	Subgroups	Group			
		Non hypertensive n=1180		Hypertensive n=200	
			%		%
Gender	Male	455	85.6	76	14.4
	Female	725	85.4	124	14.6
Age	Less than 35 years	580	95.3	28	4.7
	More than 35 years	600	77.8	172	22.2
Religion	Hindu	1152	85.6	193	14.4
	Others	28	80	7	20
Education level	Literate	966	88.6	124	11.4
	Illiterate	214	73.7	76	26.3
Occupation	Stressless	1001	85.1	179	14.9
	stressful	179	89.5	21	10.5

Figure 1

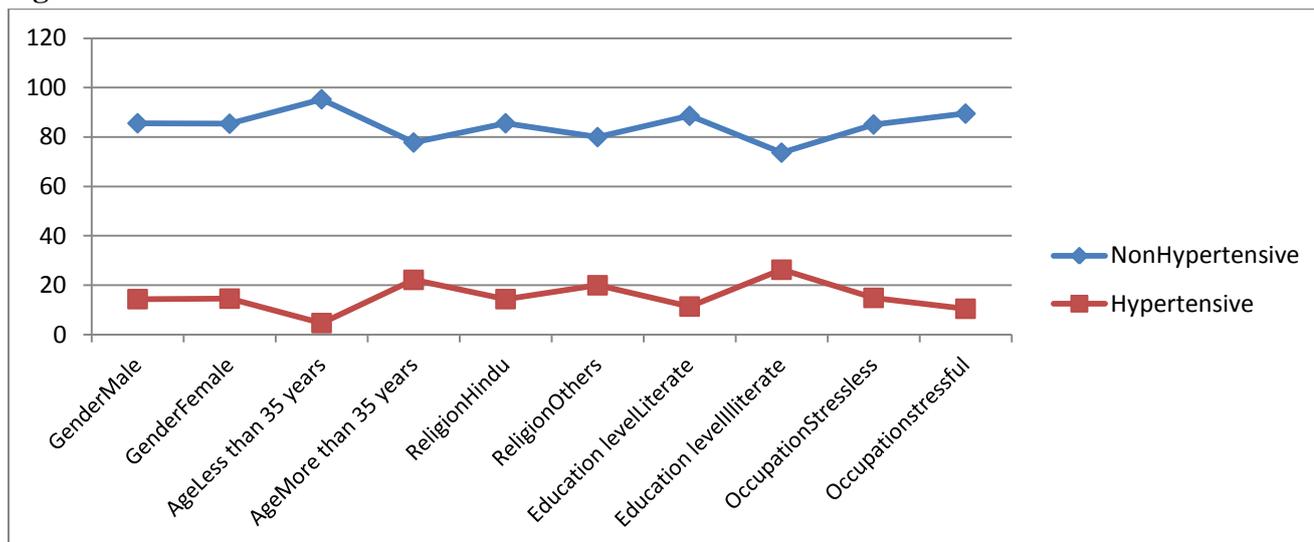


Table 2 Risk factors of study subjects

Variable	Subgroups	Group			
		Non hypertensive n=1180		Hypertensive n=200	
			%		%
Tobacco Use	Yes	124	81.5	28	18.5
	No	1056	85.9	172	14.1
Alcohol Use	Yes	62	74.6	21	25.4
	No	1118	86.1	179	13.9
Total Cholesterol	Raised	338	78.9	90	21.1
	Normal	842	88.4	110	11.6
HDL	Raised	1124	85.3	193	14.7
	Normal	56	88.8	7	11.2
Triglycerides	Raised	241	81.4	55	18.6
	Normal	939	86.6	145	13.4
Body Mass Index	Underweight	131	90.3	14	9.7
	Normal	372	88.5	48	11.5
	Overweight	179	76.4	55	21.5
	Obese	498	85.7	83	14.3

Figure 2

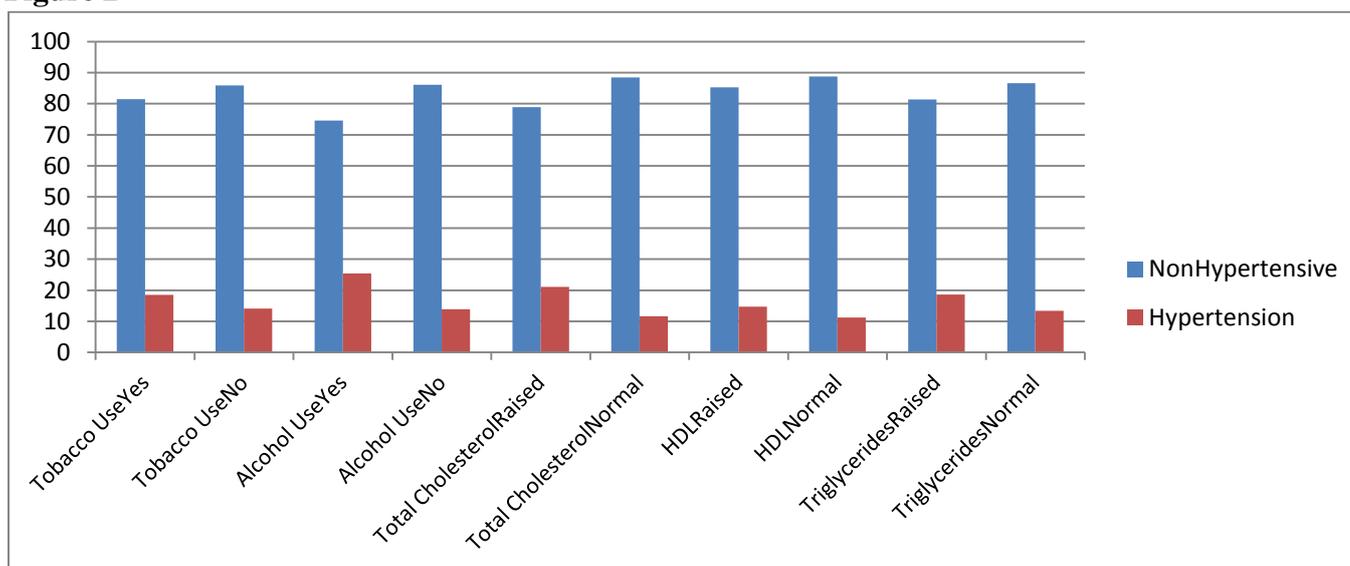


Table 3: Attitude questions

Do you think regular medications will improve the disease	Yes	179	89.5
	No	21	10.5
Do you think medications alone can control HTN	Yes	180	90
	No	20	10
Do you think diet control will improve the condition	Yes	116	58
	No	84	42
Do you think salt reduction can control hypertension	Yes	133	66.5
	No	67	33.5
Do you think regular physical activity is essential	Yes	73	36.5
	No	127	63.5
Avoiding extra cooking oil	Yes	109	54.5
	No	91	45.5

Table 4: Knowledge related questions

How did you come to know about your htn	Clinical	169	84.5
	voluntary	31	15.5
Do you have any relatives with history of htn-	Yes	53	26.5
	No	147	73.5
Do you know what are the complications of htn	Yes	48	24
	No	152	76
Do you know normal level of blood pressure	Yes	104	52
	No	96	48
Do you know the symptoms of htn	Yes	65	32.5
	No	135	67.5
Do you think smoking and alcohol consumption cause htn	Yes	114	57
	No	86	43
Do you think obesity is associated with htn	Yes	93	46.5
	No	107	53.5
Do you know the names of your prescribed drugs	Yes	60	30
	No	140	70

Table 5: Practice related questions.

Where you was first diagnosed with HTN	Government	91	45.5
	Private	109	54.5
Regular Follow up	Yes	129	64.5
	No	71	35.5
Did you ever experienced any side effect	Did you ever experienced any side effect		
Did you ever taken double dose	Yes	6	3
	No	194	97
Are you avoiding extra added salt	Yes	122	61
	No	78	39
Are you doing any physical exercise daily	Yes	33	16.5
	No	167	83.5
Are you taking your drugs regularly	Yes	129	64.5
	No	71	35.5

Discussion

The prevalence of hypertension was 14.4% (200/1380) among study subjects. Table 1 shows the socio demographic characteristics such as age, sex, and religion of non hypertensive ($n = 1180$) and hypertensive ($n = 200$) groups. The hypertension was found out to be more in individual with age group more than 35 years. There was significant difference between the two

groups with respect to age. The majority of hypertensive patients in my study are female 14.6%. Table 2 shows about the risk factors of both hypertensive and non hypertensive groups. From this study we can clearly see that there was no significant difference in tobacco intake.

The hypertension was significantly higher in individual who consumes alcohol. Cholesterol levels were measured among study subjects.

Hypertension was found in 21 % of subjects with raised total cholesterol level and 11.6% among those with normal values. Similarly there was difference in raised triglyceride levels in the both groups. A significantly higher number of study subjects were hypertensive overweight and obese group as compared to the other group. Table 3 is question related to knowledge in which we found out that patient is not aware of symptoms 67.5 % and complications of hypertension 76% were as they are aware of normal blood pressure 52 % and the side effects of smoking and alcohol in related to hypertension 57 % from this table it clearly shows patient is not aware of control blood pressure .Table 4 shows that patients are aware of taking regular medication 89.5% and importance of diet control 58 % and 63.5 % are not aware of importance of physical activity which is useful for treatment for hypertension.

Conclusion

From this study we can concluded that the prevalence of hypertension is high in area around annapoorna medical college and hospital salem. So the people around this area are vulnerable to several chronic diseases and other unbearable health problem. Specifically females are more risk of being hypertensive than male.. Independent risk factor for hypertension was found out to be increasing age. Weight management, increased fruits and vegetables consumption, physical activity and reduction in tobacco and alcohol use are required and recommended. The subject had poor knowledge on hypertension. So people requires awareness about complication of hypertension, regular use of medication and physical activities.

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