

## Evaluation of Hypertensive Patients Visited Medicine OPD at a Tertiary Care Hospital

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### ABSTRACT

**Background:** Hypertension is usually defined by the presence of a chronic elevation of systemic arterial pressure above a certain threshold value. Recently, a number of trials on antihypertensive medications such as angiotensin-converting enzyme inhibitors (ACEIs), ARBs, CCBs, diuretics and  $\beta$ -blockers have explored whether these medications influenced NOD development. Hence; the present study was conducted for retrospective evaluation of hypertensive patients visited medicine OPD.

**Materials & Methods:** Data of a total of 200 hypertensive patients was extracted from data records. A Performa was made, and details of the clinical and demographic profile were tabulated in it. Other variables recorded from data record files included past history, use of antihypertensive drugs, any other co-morbidity etc. Subjects in which incomplete information was available were excluded from the present study.

**Results:** Mean age of the patients was 53.6 years. 60.5 percent of the patients were males while the remaining were females. 38 percent of the patients were of rural residence. Mean BMI was 27.74 Kg/m<sup>2</sup>. Obesity was present in 51 percent of the patients. Diabetes, Chronic Smoking habit,

Alcohol consumption habit and Sedentary lifestyle were seen in 16.5 percent, 43 percent, 55 percent, and 64.5 percent of the patients respectively.

**Conclusion:** Hypertension was a growing global healthcare concern associated with significant morbidity and mortality. Hence; periodic screening of risk population should be done.

**Key words:** Hypertension, Blood pressure.


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### INTRODUCTION

Hypertension is usually defined by the presence of a chronic elevation of systemic arterial pressure above a certain threshold value. However, increasing evidence indicates that the cardiovascular (CV) risk associated with elevation of blood pressure (BP) above approximately 115/75 mm Hg increases in a log-linear fashion. In the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) a category of "prehypertension" was created using BP criteria of 120/80 mm Hg to 139/89 mm Hg.<sup>1,2</sup>

Globally, hypertension affects more than 1 billion people and is projected to reach 1.56 billion by 2025. It is the leading cause of death and the second leading cause of lost disability-adjusted life-years worldwide. Randomized controlled clinical trials have shown that control of hypertension reduces the risk of stroke, coronary

artery disease, congestive heart failure, end-stage renal disease, peripheral vascular disease, and mortality.<sup>3-5</sup>

New onset diabetes (NOD) and hypertension often co-existed, and thereby, the risk of cardiovascular diseases is substantially increased. And previous evidence showed that this clinical dilemma was associated with an increased risk of hepatitis C virus infection and graft rejection and loss and thereby affected patient survival quality. Also, it was reported that diabetes may be prevented by renin-angiotensin blockers. Recently, a number of trials on antihypertensive medications such as angiotensin-converting enzyme inhibitors (ACEIs), ARBs, CCBs, diuretics and  $\beta$ -blockers have explored whether these medications influenced NOD development.<sup>6-8</sup> Hence; the present study was conducted for retrospective evaluation of hypertensive patients visited medicine OPD.

**MATERIALS & METHODS**

The present study was conducted for retrospective evaluation of hypertensive patients visited medicine OPD. Data of a total of 200 hypertensive patients was extracted from data records. A Performa was made, and details of the clinical and demographic profile were tabulated in it. Other variables recorded from data

record files included past history, use of antihypertensive drugs, any other co-morbidity etc. Subjects in which incomplete information was available were excluded from the present study. All the results were recorded in Microsoft excel sheet and were subjected to statistical analysis using SPSS software.

**Table 1: Demographic data**

Variable	Number	Percentage
Mean age (years)		53.6
Males	121	60.5
Females	79	39.5
Rural residence	76	38
Urban residence	124	62

**Table 2: Anthropometric variables**

Anthropometric variables	Mean	SD
Weight (Kg)	78.3	5.3
Height (m)	1.68	0.9
BMI (Kg/m <sup>2</sup> )	27.74	2.3

**Table 3: Incidence of obesity**

Obesity	Number	Percentage
Present	102	51
Absent	98	49
Total	200	100

**Table 4: Risk factors**

Risk factors	Number	Percentage
Diabetes	33	16.5
Chronic Smoking habit	86	43
Alcohol consumption habit	110	55
Sedentary lifestyle	129	64.5

**RESULTS**

The mean age of the patients was 53.6 years. 60.5 percent of the patients were males while the remaining were females. 38 percent of the patients were of rural residence. Mean BMI was 27.74 Kg/m<sup>2</sup>. Obesity was present in 51 percent of the patients. Diabetes, Chronic Smoking habit, Alcohol consumption habit and Sedentary lifestyle were seen in 16.5 percent, 43 percent, 55 percent, and 64.5 percent of the patients respectively.

**DISCUSSION**

Arterial hypertension is recognized as one the major public health problems, representing one of the main risk factors for cardiovascular diseases. According to the Surveillance of Risk and Protection Factors for Chronic Diseases by Telephone Survey (VIGITEL), the frequency of adults that reported a medical diagnosis of arterial hypertension was 24.8%, in 2014. Data from

the American Heart Association show that 40.6% of mortality due to cardiovascular diseases is related to an increase in blood pressure, with hypertension present in 69% of patients in the first episode of acute myocardial infarct, 77% of those with stroke, 75% with heart failure, and 60% with peripheral arterial disease.<sup>9-11</sup> Hence; the present study was conducted for retrospectively evaluating hypertensive patients visited in hospital. The mean age of the patients was 53.6 years. 60.5 percent of the patients were males while the remaining were females. 38 percent of the patients were of rural residence. Mean BMI was 27.74 Kg/m<sup>2</sup>. Obesity was present in 51 percent of the patients. Diabetes, Chronic Smoking habit, Alcohol consumption habit and Sedentary lifestyle was seen in 16.5 percent, 43 percent, 55 percent, and 64.5 percent of the patients respectively. Campos CL et al characterized hypertensive patients after admission to hospital. It was found that 32% of hypertensive patients had died.

One hundred patients were interviewed, mean age of 64.15 (13.2) years, 51% were women, 56% non-white, 51% with primary education, 52% were retired, 13% were smokers, 38% used alcohol, 80% did not perform physical exercise, and the mean body mass index was 35.9 (15.5) kg/m<sup>2</sup>. The comorbidities were heart problem (52%), diabetes (49%) and stroke (25%). As to antihypertensive treatment, 75% were on use, 17.3% stopped taking them and 21.3% missed visits. The treatment sites were the primary care unit (49%) and hospital (36%). As for knowledge and beliefs, 25% believed hypertension is curable, 77% that treatment should last for the rest of their lives, and hypertension brings complications (84%).<sup>12</sup>

dos Santos Jesus E et al characterized a group of hypertensive patients in relation to beliefs, knowledge, attitudes and factors that could affect treatment compliance. The data were collected by interviewing hypertensive outpatients. A total of 511 hypertensive patients were studied: most were women, white, with elementary education, and 53±11 years old. The patients had high levels of knowledge about hypertension and treatments. However, they interrupted the treatment due to the expensive medicines and the lack of instructions. Furthermore, they believed they had to take medicines only when they felt unwell, and they did not attend their medical appointment usually due to forgetfulness and personal problems. Regarding the attitudes against the antihypertensive treatment, hypertensive patients forgot to take the medicines, took the medication at different hours, stopped taking the medication on their own account, did not follow instructions, and did not exercise regularly. The profile of the hypertensive patients identified aspects that can hamper treatment compliance.<sup>13</sup>

## CONCLUSION

Hypertension was a growing global healthcare concern associated with significant morbidity and mortality. Hence; periodic screening of the risk population should be done.

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