



SIGNIFICANCE OF METABOLIC PROFILE AND CLINICAL ASSESSMENT IN NEWLY DIAGNOSED HYPERTENSIVES- AN OBSERVATIONAL STUDY IN A TERTIARY CARE HOSPITAL.

General Medicine

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ABSTRACT

Background: Hypertension has long been called as the silent killer as because when its symptoms are apparent the damage is already done to the system and to add to the worse they are mostly irreversible. Being the diabetes capital of the world already India is also projected to become the Hypertensive capital of the world by 2025. In this context this study is aimed in the evaluation of newly detected hypertensives in a tertiary care centre. **Aim:** To study the metabolic profile in newly diagnosed hypertensive patients **Materials and Methods:** A Hospital-based cross-sectional study was conducted in the Department of General Medicine, Santhiram medical college, and the general hospital for six months. A total of 50 cases with Newly diagnosed hypertension who visited to the hospital during this period were taken into the study. **Results:** There were 29 males and 21 females in our study with a male to female ratio of 1.38:1. The mean age of female group is 51.2 years & that of male group is 48.1 years. 38% of males are in the age group of 40-49 years while 47.6% of females are in the age group of 50-59 years. In our study 62% of females were under stage 2 HT, while 49.5% of males were in stage 1 HT. 38% of females & 34.5% of males had Dyslipidaemia ; 42.8% of females & 51.7% of males have Hypercholesterolemia at the time of diagnosis of HT. In our study 2 males & 2 females were known diabetics at the time of diagnosis of HT, while 6 females & 5 males are newly diagnosed diabetics. **Conclusion:** Males develop HT early compared to that of Females. Females tend to present late with more complications compared to males. 30% of patients with HT had DM. As diabetes, hypertension is also a multisystem disease and each hypertensive patient has to be individualised and managed. Hence it is high time that a routine screening programme is initiated at Community level to identify HT at early stages itself so that complications are averted.

KEYWORDS

INTRODUCTION

A recent report on the global burden of hypertension indicates that nearly 1 billion adults (more than a quarter of the world's population) had hypertension in 2000, and this is predicted to increase to 1.56 billion by 2025. Subjects with hypertension are known to have a two-fold higher risk of developing coronary artery disease (CAD), four times higher risk of congestive heart failure and seven times higher risk of cerebrovascular disease and stroke compared to normotensive subjects.

Classification Of Hypertension

BLOOD PRESSURE CLASSIFICATION	SYSTOLIC BP	DIASTOLIC BP
NORMAL	<120	</80
Prehypertension	120-139	Or 80-99
Stage 1 HT	140-159	Or 100-109
Stage 2 HT	>/ 160	Or >/ 110

Hypertension has been identified as one of the leading risk factors for mortality, and is ranked third as a cause of disability adjusted life years. The increase in the prevalence rates of hypertension needs to be quantified so as to plan for effective prevention strategies which are urgently needed in developing countries. Less studies are there in newly diagnosed hypertensives and the prevalence of complications and risk factors among them. this study is aimed in the evaluation of clinical significance and metabolic profile in newly detected hypertensives in a tertiary care hospital.

Aims and Objectives

- To study the complete profile of newly diagnosed hypertensives
- To study the prevalence of metabolic syndrome among newly diagnosed hypertensives.

Materials and Methods

A Hospital-based cross sectional study was conducted in the Department of General Medicine Santhiram Medical College, and General Hospital for six months after approval from the Hospital Ethics and Research Committee.

Duration Of Study: From JULY 2023 to JANUARY 2024

Sample Size: 50

Methods Of Data Collection

- All the selected cases of newly diagnosed hypertensive patients

visited to general medicine OPD in Santhiram medical college and general hospital, Nandyal, fulfilling the inclusion criteria, were taken for study after taking prior informed consent.

- Information is collected through a pre-structured proforma for each study subject
- The study was carried out on patients with newly diagnosed Hypertension.
- Qualifying study subjects will be undergoing detailed history, clinical examination, and laboratory investigations.

Sampling Technique: Simple Random Sampling

Inclusion Criteria

- Patients with age more than 18 years
- Patients newly diagnosed as hypertensives in out patient department.
- Patients who are willing to participate and give informed written consent.

Exclusion Criteria

- Age less than 18yrs
- known hypertensives who have discontinued drugs and have now come for treatment or with complications
- Known DM patient under anti proteinuria therapy
- Known CKD/ hypothyroid
- Known case of secondary HT or during evaluation found to have secondary causes.
- Patients who are already under anti hypertensive drugs for other indications like CHD, etc.
- Patients those who are not willing to participate and will not give informed and written consent.

Data Analysis

- Data was collected using a pretested proforma meeting the study's objectives. Detailed history, physical examination, and necessary investigations were undertaken.
- The chi-square and Fisher's Exact test were used in statistical analysis to compare proportions. At a P-value of 0.05, statistical results were considered significant <0.01.

RESULTS

Table 1: - Age And Sex Distribution In The Case Group

AGE	30-39	40-49	50-59	>60	TOTAL
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F	-	6	10	5	21
M	4	11	9	5	29
RATIO	-	1.8:1	0.9:1	1:1	1.38:1

In our study 47% of Female are in age group of 50-59 whereas 38% of Males are in age group of 40-49. The p value was <0.05 significant.

Table 2 :- Distribution of HT Stage Among the Sexes

	ISH	STAGE1	STAGE2	TOTAL
F	3	5	13(62%)	21
M	3	15(49.5%)	11	29

In our study females tend to present in stage2 HT (62%) whereas Males tend to present a little earlier in stage1 HT (49.5%). The p value was <0.05.

Table 3: Dyslipidemia Among Newly Detected HT

LDL	<100	100-129	130-159	160-189	190 & above	%
F	1	13	6	1	0	33.34
M	2	16	7	2	3	41.38

In this study 33.34% females and 34.5% males had Dyslipidemia i.e., ;LDL levels of 130mg/dL and above.

Table 4 : Total Cholesterol Among Newly Diagnosed HT

TOTAL CHOLESTEROL	<200	200-239	240 & Above	%
F	12	8	1	42.85%
M	14	12	3	51.72%

In this study 48% of newly diagnosed HT had Hypercholesterolemia. 42.85% of females and 51.72% of males had hypercholesterolemia.

DISCUSSION

In our present study applying the JNC-7 criteria 50 newly diagnosed hypertensive patients were included after excluding secondary hypertension. There were 29 males and 21 females in our study with a male to female ratio of 1.38:1.

The mean age of female group is 51.2 years & that of male group is 48.1 years.38% of males are in the age group of 40-49 years while 47.6% of females are in the age group of 50-59 years.

In our study 62% of females were under stage2 HT, while 49.5% of males were in stage1 HT.

38% of the study population had Dyslipidaemia out of which 33.34% are females & 34.5% are males.

In our study 48% of the study population had Hypercholesterolemia out of which 42.85% are females & 51.72% are males.

CONCLUSION

1. 38% of newly diagnosed hypertensives had some form of end organ.
2. 39% of newly diagnosed hypertensives had Dyslipidemia and 48% of them had Hypercholesterolemia.
3. As diabetes, hypertension is also a multisystem disease and each hypertensive patient has to be individualised and managed.
4. Finally it's high time that a routine screening programme is initiated at Community level to identify HT at early stages itself so that complications are averted.