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Comprehensive analysis of agent's used for hypertension coordinated diseases in coimbatore district, multi-specialty private hospitals

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Abstract

Cardiovascular diseases have emerged as an important health problem in all industrialized countries. The limited informations are available from developing countries suggested that a similar epidemic is inevitable if current trends go unchecked. We have selected comprehensive analysis of agents used in antihypertensive combination therapy. The study has been conducted in three different multi specialty private hospitals in Coimbatore{Vijaya , Surya and Sakthi hospitals). The 51 numbers of inpatient case sheets have been collected from different hospitals from the month of December 2005 to Feb. 2006. The epidemiological studies have been demonstrated that the prevalence of hypertension was increased in the males (52%) when compared to females (48%). The age distribution results have been expressed that the adult age group of hypertensive patients were more when compared to each other age group of patients. The married patients were affected for more hypertension (99%) when compared to unmarried statistics. The comprehensive analysis of agents used in hypertension coordinated diseases report has been suggested that the renal failure (23%) patients were very less percentage in Coimbatore area when compared to diabetes mellitus (54%). Finally physician drug prescriptions have been indicated that the hypertension coordinated renal failure for ACE inhibitors in combination of adrenergic receptor blocking agents, calcium channel blocker and thiazide diuretics. The hypertension coordinated diabetes mellitus Patient prescriptions have been expressed for beta blocker in combination with ACE inhibitors, thiazide diuretics and γ-

peroxisome proliferator-activated receptors (PPARs) agonist drugs. By the way of conclusion readers were exhorted to involve themselves in understanding and through this improving the health of the communities in which they lived.

Key words: Hypertension**,** Diabetes Mellitus, Renal failure

INTRODUCTION

The several literatures have been showed that the cardio vascular disease have emerged as an important health problem in India. High blood pressure is an important health problem in India. High blood pressure is a major risk factor and better control can lead to prevention of 300,000 of the 5.5 million annual deaths from cardio vascular diseases in India [1]. The coronary heart disease and stroke are the largest causes of death in developing countries and are one of the main contributors to disease burden [2,3]. The sodium intake induces hypertension by increasing fluid volume and preload, thereby increasing cardiac output. Sodium excess may increase blood pressure in multiple other ways as well; affects vascular reactivity and renal function [4,5]. The advance hypothesis that the nephron endowment at birth is inversely related to risk of developing hypertension later in life [6]. Important hypertension risk factors are genetic and environmental. There are a large number of genes that are responsible for hypertension. Single-gene related hypertension is however, rare. Intermediate phenotypes are more important and prevalent than gene mutations [7]. These phenotypes are body fat distribution, familiar dyslipidemia, metabolic syndrome, insulin resistance, Kallikrein deficiency, Sodium Sensitivity, non modulation of aldosterone, renal blood flow, and abnormal cellular ion transport system (Na, Li, H transport system) and B.P reactivity. The environmental effects are powerful and explain the most of the B.P difference between populations [8]. Other environmental factors are smoking, alcohol intake, physical inactivity, dietary excess of sodium, excess fat, deficiency of potassium and psychological stress [9]. The B.P is directly proportional to blood glucose level because hyper activation of sympathetic nervous system. The maximum numbers of hypertensive patients are affected in diabetes mellitus [10]. Population and individual based measures to prevent and control high BP should focus on measures to prevent the coordinated diseases.

MATERIALS AND METHODS [10-15]

The study was approved by the institutional ethics committee and support financially by cherraan's Institute, of Health Sciences Coimbatore. The study was conducted in three different multi specialty private hospitals. Name of the hospitals given below.

1) Vijaya Hospital, Ganapathy, Coimbatore.
2) Surya Hospital, Ganapathy, Coimbatore.
3) Sakthi , Ganapathy, Coimbatore.

The 51 inpatients case sheets were collected from cardiology department of three different hospitals. We have prepared standard data entry format (proforma of the patients). The details of standard entry format has consists of prescribed drugs, other disorders, pathological parameters

and post medication history. The epidemiology and comprehensive analysis of agents used in antihypertensive combination therapy have been evaluated by using standard data entry format.

RESULTS AND DISCUSSION

Epidemiological evaluation

The epidemiological evaluation study has expressed that the male (52%) hypertensive patient's percentage were increased when compared to females (48%). The age distribution results have been suggested that the following age difference 0-20 (1), 20-30 (0), 30-40 (2), 40-50 (3), 50-60 (17), 60-70 (15), 70- 80 (11), 80- 90 (1), 90- 100(1). The married patients were more sensitively affected by hypertension when compared to unmarried patients. The epidemiological investigated results have shown Table. No-I – III and Figures No I-III.

Table No: I - Sexwise distribution

Sex	Percentage
MALE	52%
FEMALE	48%

Fig No: I - Sexwise distribution

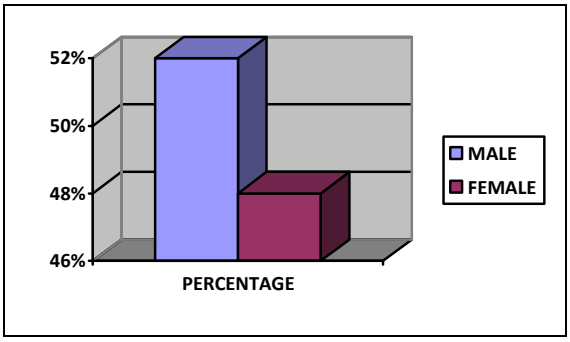


Table No: II - Marital Status

Marital status	Percentage
MARRIED	99%
UNMARRIED	1%

Fig No: II - Marital Status

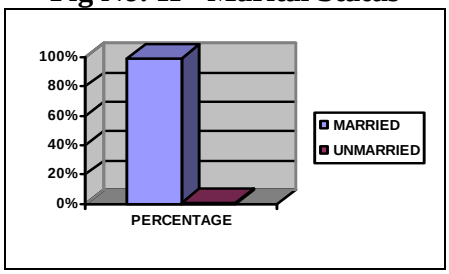
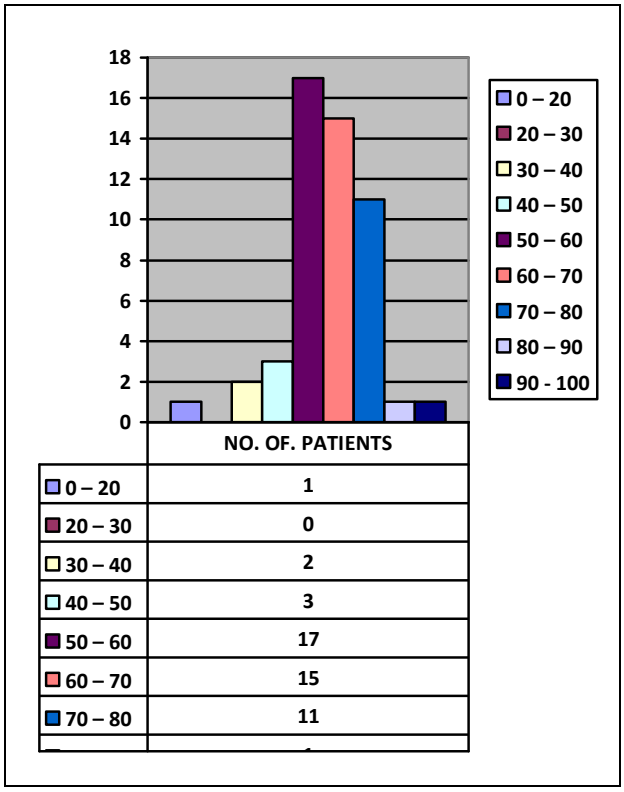


Table No: III - Age wise distribution

AGE	NO. OF. PATIENTS
0 – 20	1
20 – 30	0
30 – 40	2
40 – 50	3
50 – 60	17
60 – 70	15
70 – 80	11
80 – 90	1
90 - 100	1

Fig: III - Age wise distribution



Antihypertensive combination therapy

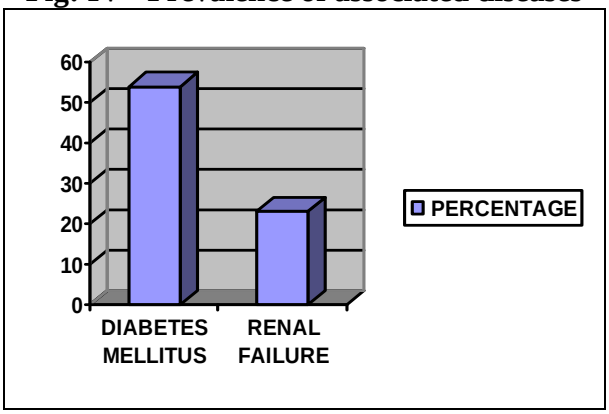
The data entry format reports have been suggested that the hypertension coordinated diabetes mellitus patients (54%) were increased when compared to hypertensive coordinated renal failure (23%). The physician has been prescribed Angiotensin Converting Enzyme Inhibitors (ACEI) + Adrenergic Receptor Beta Blockers (ARBs)+ γ-peroxisome proliferator-activated receptors (PPARs) agonist drugs used for hypertension coordinated diabetes mellitus. Finally physician drug prescriptions have been indicated that the hypertension coordinated renal failure for ACE

inhibitors in combination with adrenergic receptor blocking agents and thiazide diuretics.The Antihypertensive combination therapy results have been indicated Table. No- IV and Figures No IV.

Table No: IV -Prevalence of associated diseases

ASSOCIATED DISEASE	PERCENTAGE
DIABETES MELLITUS	54
RENAL FAILURE	23

Fig: IV - Prevalence of associated diseases



CONCLUSION

Secular analyses of hypertension epidemiological studies in coimbatore in the present investigation have demonstrated that the prevalence is increasing exponentially in the country. Our studies demonstrated increasing diabetes mellitus and renal failure level were driving this epidemic. There is an urgent need to develop suitable strategies for prevention of diabetes mellitus and renal failure in India using population based approaches.

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