Prevalence of Lipitension in Kashmir North India: A Hospital Based Study

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ABSTRACT

2 years hospital based prospective study was undertaken. 200 patients of hypertension and 150 normotensives were studied for abnormal lipid parameters. 72% hypertensives and 63.3% of normotensives were found to have Dyslipidaemia as per NCEPATPIII. JMS 2014; 17(2):59-60

Keywords: Lipitension, Dyslipidaemia, Hypertension.

INTRODUCTION

Hypertension can cause damage to all organs of the body. Dyslipidaemia and Hypertension are the commonest risk factors for coronary artery disease. The combination of Hypertension and Dyslipidaemia (Lipitension) are particularly at high risk of CAD. So during work up of hypertensive patients it is worth while to investigate all side factors of CAD. The study was therefore carried out to know the abnormal lipid profile prevalence and pattern among hypertensive patients.

METHODS

A prospective study of 2 years was undertaken. 200 patients of hypertension who were attending medical OPD for treatment were randomly picked for the study. 150 subjects of normal blood pressure who had attended OPD for medical check-up were also randomly picked up for the study. Patients with CRF, diabetes mellitus, hypothyroidism, CLD as well as patients on oral contraceptives, statins and ethanol users were not taken into study (excluded from study and control groups). The blood pressure recording was taken in right arm after 5 minutes of rest. 12 hour fasting blood samples were taken from the subjects.

The following parameters were measured:

1. Total cholesterol in mg/dl.
2. HDL cholesterol in mg/dl.

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3. Triglycerides in mg/dl.

LDL cholesterol was calculated by Friendwald formula i.e. $LDL = \text{total cholesterol} - [\text{HDL} + \text{TG}/5]$.

Individuals were classified on the basis of national cholesterol education program (NCEP) adult treatment panel III. Data analysis was expressed as the mean value +SD. Statistical analysis was done by using t-test and chi-square test. The p value of < 0.05 was taken as value of statistical significance.

RESULTS

In hypertensive group 88(44%) were males and 112(56%) were females with age range of 16-75 years and mean of 44.9+11.9 years. In control group out of total of 150 subjects 42(28%) were males and 108(72%) were females with age range 16-80 years and mean of 41.6+11.6 years. 144(72%) hypertensives were found to have cholesterol >200 mg/dl; LDL>100 mg/dl; TG>150 mg/dl and HDL<40 mg/dl as compared to 95(63.3%) in normotensives. The results are shown in table 1 and bar table given below:

Table 1: Dyslipidemia (As per NCEP ATP III)

S.No.	Types	Hypertensive		Controls		p-Value
1.	TC (≥ 200 mg/dl)	94	74.0%	56	37.3%	0.177
2.	LDL (≥ 100 mg/dl)	122	61.0%	75	50.0%	0.079
3.	TG (≥ 150 mg/dl)	151	75.5%	92	61.3%	0.044
4.	HDL (<40 mg/dl)	73	36.5%	35	23.3%	0.015*

Table 2: Comparison of prevalence of dyslipidemia with other studies

Studies	Prevalence of Dyslipidemia
Present study	72%
Pramila Devi et al	90%
Thakur et al	60%
Haskim AS et al	40%

DISCUSSION

Dyslipidemia and hypertension (Lipitension) are well established risk factors for CAD and the coexistence of these have more than additive affect for the same¹. The study revealed that 72% (144) of hypertensives had Dyslipidemia as per National Cholesterol Education Program (NCEP) Guidelines (Adult Treatment Panel III).

Among the controls (Normotensives) 63.3% had Dyslipidemia as per NCEP guidelines (Adult Treatment Panel III). This study is quite apart from other studies, because lipid profile of primary hypertensives after excluding secondary causes of dyslipidemia (like diabetes augments the process of Atherosclerosis, keeping the above lipid parameters (63.3%). Atherosclerosis can occur without hypertension though hypertension and chronic liver disease) was estimated. As far as lipid abnormalities in hypertensives are concerned our results are comparable with results obtained by Pramila Devi.R. Et al, Tavasoli AA et al, Thakur et al (2,3,4) (Table 2). As per the study of Hakim et al (1997), 68% of patients were having elevated TC against 47% of our study (5). Our study indicates that dyslipidemia is common in hypertensives; therefore blood sampling for measuring lipid profile in hypertensives is an

essential part of managing them. Our study also highlights a good number of subjects of normal blood pressure having abnormal observations in view, we conclude that healthy life style, diet and physical activity of hypertensives as well as normotensives be encouraged.

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