

ABSTRACT

BACKGROUND

Metabolic syndrome includes hypertension, obesity, insulin resistance and dyslipidemia. Metabolic syndrome helps in early identification of the people at risk of developing diabetes and cardiovascular diseases. The prevalence of metabolic syndrome varies from 50%-80% in various parts of the world. Thus early recognition of metabolic syndrome is needed.

AIM

1. To study the prevalence of metabolic syndrome in newly diagnosed hypertensive individuals.
2. To study the prevalence and pattern of lipid profile abnormalities in hypertensive individuals.

To study the clinical, demographic and social parameters influence on lipid profile abnormalities.

METHODS

In this cross sectional study, 150 newly detected hypertensive individuals were included in the study. All participants were explained about the study and informed consent was obtained. They were investigated for fasting blood glucose, lipid profile including total cholesterol, triglycerides, high density lipoprotein . Anthropometric measurements were made. Statistical analysis was made using SPSS 16 software . The difference between various parameters were considered statistically significant if the p value was <0.05.

RESULTS

The study population of 150 newly detected hypertensive individuals, there are 78 (52%) males and 72 (48%) females. The mean age of the study population is 55.68 years.

The prevalence of metabolic syndrome calculated according to NCEP ATP III criteria is 59.33% that is 89 patients out of 150 newly detected hypertensive people. There is no statistical difference in the prevalence of metabolic syndrome on the basis of gender, age. Statistical significant difference in the prevalence of metabolic syndrome among smokers compared to non-smokers. The people with sedentary lifestyle had significantly higher prevalence. The prevalence of metabolic syndrome was significantly higher in people in stage 2 hypertension. The prevalence of each component of metabolic syndrome in male is found to be elevated triglycerides (80.76%), abnormal waist circumference (46.15%), low HDL (43.58%), impaired fasting blood glucose (26.92%) and in females the same component's prevalence are 73.61%, 72.22%, 12.5%, 15.27% respectively. The prevalence of each component in patients with metabolic syndrome in our study shows that in male, elevated TGL (97.67%) is the most common component being seen. It is followed by abnormal waist circumference (79.06%), low HDL (76.74%), impaired blood glucose (39.53%). Among females with metabolic syndrome the prevalence of components are low HDL (97.8%), elevated TGL (93.47%), abnormal waist circumference (89.13%), impaired blood glucose (17.39%). The prevalence of lipid profile abnormalities in hypertensive patients is elevated TC 43.33%, elevated TGL 76.8%, elevated LDL 28.66% and low HDL 44.4%. The prevalence of elevated total cholesterol was significantly higher in

patients with age 50 years. The prevalence of low HDL among male and female is 43.58% and 12.5%. The difference between the two is statistically significant. The mean values of lipid profile abnormalities are compared between sedentary and non-sedentary hypertensive people and it is significantly higher in sedentary group. There is significant difference in the lipid profile values of obese people compared to non-obese individuals.

CONCLUSION

The prevalence of metabolic syndrome is high in newly detected hypertensive individuals. People with sedentary lifestyle, smokers, stage 2 hypertensive people had significantly higher prevalence of metabolic syndrome. The dyslipidemia was seen significantly higher in people with age 50 years, sedentary people and obese people.

KEY WORDS

Metabolic syndrome, hypertension, dyslipidemia, obesity