



## ▼ UNDERGRADUATE ABSTRACTS

### UG -1 : PREVALENCE OF PREHYPERTENSION AND DYSLIPIDEMIA IN MEDICAL STUDENTS

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**Background:** Cardiovascular diseases (CVD) are among the leading causes of morbidity and mortality globally. Previous studies conducted in India showed that more than 45% suffers from pre-hypertension. Persons with systolic blood pressure of 120-139 mm Hg or diastolic blood pressure of 80-89 mm Hg are defined as having “prehypertension”. Subjects with pre-hypertension have a greater risk of developing hypertension, myocardial infarction and coronary artery diseases later in life. Adopting preventive measures such as lifestyle modification, yoga, and meditation may be helpful for prehypertensives in preventing the progress and complication. Dyslipidaemia is abnormal lipid profile. The prevalence of dyslipidaemia is increasing worldwide. One of the causes of dyslipidaemia is obesity. Dyslipidaemia is a major risk factor for atherosclerosis also which contribute to cardiovascular complications. In medical profession fast food consumption is one of the major cause of obesity.

**Methodology:** This study was conducted at Aarupadai Veedu Medical College and Hospital of Puducherry, India. A total of 300 medical students of first to final year MBBS (18-23 years) were selected randomly. Each participant's data was collected by questionnaire method followed by anthropometric measurements of height and weight. BMI was calculated. To measure the blood pressure a mercury sphygmomanometer was used. The mean of three readings, recorded 5 min apart was taken. Blood samples were collected

after an overnight fast. Fasting plasma glucose, serum cholesterol, triglyceride and HDLc, were estimated by using commercially available kits in autoanalyzer. Serum LDLc, and VLDLc (very low density lipoprotein-cholesterol) were calculated. All the data were analysed by using SPSS-16 software.

**Results:** Out of 300 students 160 (53%) were males and 140(47%) were females. The overall prevalence of PHT was 38%. Prevalence of prehypertension is more in females. BMI of Pre-hypertensive were significantly ( $p < 0.001$ ) more than the normotensive students. Among the lipid parameters, prehypertensives showed significant increase in TC, TG, LDLc than normotensive students. TC, TG, LDLc were high for female students than male students. Total prevalence of dyslipidaemia was 17.4 % ( 14.9% hypercholesterolemia, 8.15% hypertriglyceridaemia, 5.6% high LDLc level and 10.4% low HDLc level). So prevalence of hypercholesterolemia is more followed by low HDLc level.

**Conclusion:** In conclusion, our study among healthy medical students found a prevalence of prehypertension of 38% and this was associated with a higher BMI .Prevalence of dyslipidemia is 17.4%. Hypercholesterolemia is more prevalent .Students should change their life style. They should do yoga, meditation regularly to cope with stress. They should avoid oily foods to decrease cholesterol level.