**Association of Elevated Blood Pressure and Body Mass Index with**

**High Prevalence of Reduced Bilateral Visual Acuity in Adults.**

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## ABSTRACT

**OBJECTIVE**: To identify the effect of high blood pressure and body mass index on the visual acuity in young adults

**STUDY DESIGN:** Across-sectional descriptive study

**PLACE AND DURATION:** Department of physiology, Mohi-ud-din Islamic Medical College Mirpur from March 10, 2017 to January 12, 2018.

**METHODOLOGY**: This was done on 150 undergraduate medical students. Blood pressure, height and weight were measured using standard procedure and Body Mass Index was calculated. Visual Acuity for both right and left eyes were recorded separately using E letter chart.

**RESULTS:** Of 150 students, >48% of the participants were overweight or obese with Body Mass Index more than 25. Obese group demonstrated significantly higher values of height, weight, Body Mass Index, systolic and diastolic pressure compared to non-obese. Mean values of visual acuity obtained from obese and non-obese subjects were significantly different (p <0.05) for right eye (18.56±1.30 and 18.96±1.10) and left eye (18.08±1.79 and 18.94±1.13) respectively. Higher prevalence of low Visual Acuity was also significantly (p <0.05) associated with higher systolic and diastolic blood pressure.

**CONCLUSION**: Reduced Visual Acuity (especially Myopia) is common among medical students and myopics are taller, heavier and have higher BMI and blood pressure.

**KEYWORDS**: Adult, Body mass index, Elevated blood pressure, E-Chart, Obesity, Visual acuity

**HOW TO CITE THIS:**

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