

Prevalence and Associated Risk Factors of Hypertension: A Cross Sectional Study in Urban Varanasi

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Abstract—*Background:* Hypertension is a major public health problem and important area of research due to its high prevalence and being major risk factor for cardiovascular diseases and other complications. It is asymptomatic, easily detectable and preventable risk factor for various non-communicable diseases. In India, urban population is disproportionately affected by hypertension and prevalence is moving continuously upward.

Objectives: 1) To assess the prevalence of hypertension and its associated factors and 2) To estimate awareness, treatment and adequacy of control of hypertension among study subjects.

Methods and Materials: A community based cross-sectional study with multi-stage sampling design was conducted among urban population of Varanasi. Out of 90 wards 5 wards were selected randomly. Household were selected by using systematic random sampling. One member from each household was selected by lottery method in the 25-64 years age group. A predesigned and pretested proforma was used to collect the basic characteristics of study subjects. Joint National committee 7 (JNC 7) cut off was used to define hypertension.

Results: The prevalence of hypertension was 32.9% with 95% CI: 29.4% – 36.7% (Male: 40.9% & Female: 26.0%). Mean systolic BP was 124.25 ± 15.05 mmHg and mean diastolic BP was 83.45 ± 9.49 mmHg. Male had higher odds of being hypertensive (OR: 1.97). Higher odds of being hypertensive were found in the eldest age group (OR: 6.49), married (OR: 2.34), upper socio-economic status (OR: 1.31), illiterate (OR: 1.17) and retired subjects (OR: 3.66). Tobacco consumption (OR: 1.86) and alcohol consumption (OR: 1.55) were also associated with hypertension. Overweight (OR: 1.99), obesity (OR: 3.57) and abdominal obesity (OR: 1.73) were also found to be risk factors for hypertension. Out of total hypertensive (211), only 81 (38.4%) were aware about their hypertension status, out of those, 57 (70.4%) were seeking treatment and 20 (35.08%) had their blood pressure adequately controlled.

Conclusion: Around one third subjects were hypertensive and half of study subjects were prehypertensive in this area. This high rate of hypertension puts these subjects at the risk of developing other non communicable diseases. The awareness, treatment and controlled subjects with high blood pressure were also very low. There is dire need of community based approaches for health education and for strengthening blood pressure monitoring systems to better manage hypertension.