Objective: Hypertension is the most common non-communicable disease and risk factor for heart failure, stroke, chronic kidney disease and ischemic heart disease in sub-Saharan Africa. Few population-based studies have been conducted recently in Nigeria and, in Abia State, no previous study has been conducted on the prevalence and correlates of hypertension among the populace. The purpose of our study was, therefore, to determine the prevalence and determinants of high blood pressure in Abia State, southeastern Nigeria. We hypothesise that high blood pressure burden is high in Abia State.

Design: The study was a community based cross-sectional house-to-house survey aimed at ascertaining the burden/prevalence of hypertension in the state as well as identifying related risk factors associated with them.

Setting: The study was conducted in rural and urban communities in Abia State, Nigeria.

Participants: Participants in the study were men and women aged ≥15 years and were recruited from the three senatorial zones in the state.

Main Outcomes: A total of 2,999 respondents were selected for the survey and, 2,983 consented to be interviewed giving a response rate of 99.5%. The data for 2,928 participants were suitable for analysis. Of these, 1,399 (47.8%) were men. The mean age of the population was 41.7 ± 18.5 years (range 18–96 years). About 54% of the population were ≤40 years. Ninety percent had at least primary education with about 47% having completed secondary education. Expectedly, 96% of the respondents were Ibos, the predominant tribe in the southeastern part of the country. Women had significantly higher BMI than the men. Similarly, waist circumference was also larger in women but waist-to-hip ratio was only significantly higher in women in the urban areas compared to those in rural areas. Thirty-one percent of all participants had systolic hypertension (33.5% in men and 30.5% in women). This sex difference was statistically different in the urban area. On the other hand, diastolic hypertension was 22.5% in all the population (23.4% in men and 25.4% in women). Age and indices of obesity were the strongest predictors of blood pressure.

Conclusion: The prevalence of hypertension was high in our study both in rural and urban settings. The major determinants of blood pressure in our participants included age, sex, indices of obesity and pulse rate. (Ethn Dis. 2013;23(2):161–167)

Key Words: Prevalence, Non-communicable Disease, Hypertension, Blacks, Abia State, Nigeria

INTRODUCTION

Epidemiological studies have shown that hypertension is a major global health problem. Worldwide prevalence estimates for hypertension may be as high as one billion individuals, and approximately 7.1 million deaths per year may be attributable to hypertension. More so, it is responsible for 4.5% of disease burden worldwide, translating to 64 million disability adjusted life years (DALYs). The relationship between blood pressure and risk of cardiovascular disease is continuous, consistent, and independent of other risk factors. The higher the blood pressure, the greater the chance of heart attack, heart failure, stroke and kidney disease, and also the more likely that various cardiovascular diseases will develop prematurely through acceleration of atherosclerosis, the pathological hallmark of uncontrolled hypertension. When not treated, about 50% of hypertensive patients die of coronary heart disease or congestive heart failure, about 33% of stroke, and 10–15% of renal failure. Those who rapidly accelerating hypertension die more frequently of renal failure.

Data from the National Health and Nutrition Examination Survey (NHANES) have indicated that 50 million or more Americans have high blood pressure warranting some form of treatment. Wolf-Maier et al reported the prevalence of hypertension in North America and Europe at 28%, and 44% respectively. In West Africa, the prevalence of hypertension is estimated to be about 14%. In Nigeria, various studies have been carried out in different parts of the country on the prevalence of hypertension. A study done in Benin City confirmed that systolic and diastolic blood pressures of Nigerians rise with...