

Abstract

Introduction

This study evaluated the status of stage 2 hypertension, abnormal ECG and their co-occurrence as possible risk factors of cardiovascular disease and their predictors in a Nigerian University population.

Methods

A total of 717 subjects participated in this study. Blood pressure (BP), resting electrocardiogram (ECG) and other clinical parameters were measured and categorised according to standard organisational guidelines. Bivariate correlation and multivariate logistic regression model were used to determine covariates and clinical parameter association at a 95 % significant level.

Results

Stage 2 hypertension and abnormal ECG respectively occurred in 264 (37 %) and 217 (39.2 %) subjects, with co-occurrence and abnormal BMI in 85 (11.8 %) and 459 (64.8%) subjects, respectively. Sex ($p = 0.001$) and occupation ($p = 0.022$) were independently associated with abnormal BP and ECG, respectively, while age was independently associated ($p < 0.001$) with abnormal BP, ECG and co-occurrence of these conditions. Predictors of stage 2 hypertension and abnormal ECG were sex (adjusted odds ratio [aOR] = 1.652, 95 % CI 1.097–2.488) and occupation (aOR = 0.411, 95 % CI 0.217–0.779), respectively, while age was a predictor for stage 2 hypertension (aOR = 0.065, 95 % CI 0.015–0.283), abnormal ECG (aOR = 0.137, 95 % CI 0.053–0.351) and their co-occurrence (aOR = 0.039, 95 % CI 0.014–0.113).

Conclusions

This study shows prevalence rates of these risk factors are on the increase. It also suggests that ECG abnormality is a public health issue among stage 2 hypertensive patients that must be monitored. Therefore, appropriate interventions that prevent and control hypertension and identified risk factors should be put in place in addition to lifestyle changes, regular screening and surveillance.