

Prevalence and risk factors associated with hypertension among armed-forces personnel in Kenya

Abstract:

Introduction: Hypertension remains a major risk factor for the development of cardiovascular diseases (CVDs) worldwide. Statistics show a rising morbidity and mortality in developing countries, especially in sub-Saharan Africa, as a result of hypertension. Military personnel are physically fit as a result of engaging in physical activities and regular exercise, thus reducing chances of developing CVDs. However, hypertension has been observed to be on the rise among the armed-forces population. **Objective:** To determine the prevalence and risk factors associated with hypertension among military personnel in Kenya. **Methods:** This was a cross-sectional, randomised case-control study carried out at Armed Forces Memorial Hospital in Nairobi. A total of 340 (170 hypertensive and 170 normotensive) subjects were recruited into this study. A structured questionnaire based on the WHO stepwise approach for surveillance of chronic diseases was used for data collection. Physiological and anthropometric measurements were obtained from subjects in the two groups. Data were analysed using STATA version 11 to compare the two groups and determine the influence of diverse risk factor on hypertension. **Results:** The mean age SD of hypertensive and normotensive subjects was 45.1, 7.7 and 40.8, 7.3 years, respectively. On average the hypertensive patients were 4.82 older than the normotensives ($p < 0.0001$). There was a strong ($\chi^2=34.33$, $d.f.=3$; $p < 0.0001$) statistical association between the frequency of alcohol consumption and hypertension. Approximately 11% of cases were current smokers compared to 4.2% in the control group. There was a significant association between current smoking and hypertension (OR =0.17; 95% CI: 0.14–0.89). The findings show that cases of hypertension had poor nutritional indicators compared to the controls. In addition, cases were more likely to be overweight (59.76 vs 28.24%) or obese (19.53 vs 3.53%) compared to the controls. **Conclusion:** Our study findings revealed that higher anthropometric measurements, cigarette smoking and certain dietary habits are significant risks for hypertension among the armed forces. The level of physical fitness among this population was 95% (excellent) as per the fitness index results. Our study findings provide an impetus for the urgent need to encourage healthy lifestyles as a primary-prevention strategy and explore other possible risk factors for the development of CVDs and hypertension among this population.