

**Prevalence and Associated Risk Factors for Hypertension among  
HIV Positive Patients Attending Comprehensive Care Centre at  
Thika District Hospital, Kenya, 2008**

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## ABSTRACT

Hypertension is one of the major risk factors for stroke, heart failure, kidney failure, eye disease and premature death. With the advent of Human Immunodeficiency Virus (HIV) infection and antiretroviral drugs, there has been conflicting reports on their effect on hypertension with some studies associating the two with hypertension. However, data is still scanty especially in Africa as few studies have been done. This study aimed at evaluating the prevalence of hypertension among HIV positive patients and associated risk factors.

A cross-sectional study was carried out over 2 months (between 15<sup>th</sup> September and 10<sup>th</sup> November, 2008) at the out-patient based Comprehensive Care Centre, Thika District Hospital. A total of 200 HIV positive patients were selected through systematic random sampling. Blood pressure was measured in all selected participants in order to assess the prevalence of hypertension. A detailed semi-structured questionnaire was also administered to determine the risk factors for hypertension.

Prevalence of hypertension among HIV positive patients was 18% (95% Confidence Interval [CI]:12.5-23.5%). The hypertensive and the normotensive groups were comparable in terms of duration of HIV infection and use of antiretroviral drugs. The hypertensive group was older by six years ( $43.3 \pm 10.4$  vs  $37.4 \pm 9.3$ ;  $p$ -value=0.001) with an age of  $\geq 35$  years being independently and significantly associated with hypertension at logistical regression analysis (Odds Ratio [OR]:4.55; 95% CI: 1.72-12.03;  $p$ -value=0.002). The hypertensive group had a higher body mass index (BMI) ( $23.53 \pm 3.4$  vs  $21.96 \pm 3.9$ ;  $p$ -value= 0.03) with a BMI of  $\geq 25$  being significantly associated with hypertension (OR: 3.01; 95% CI: 1.32-6.85;  $p$ -value=0.009). Having had kidney

disease was also significantly associated with hypertension (OR: 13.38; 95% CI: 1.81-98.73; p-value=0.01).

Hypertension is not uncommon in HIV positive patients and better prevention, detection, control and treatment policies should be formulated. An age of  $\geq 35$  years, being overweight and having kidney disease were the risk factors identified in this study.