Lifestyle Modification

Is sedentary lifestyle a critical driver for hypertension burden in Sub-Saharan Africa?: evidence from a community-based population in Ghana and Nigeria

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Background: Hypertension is the principal risk factor for stroke events in Sub-Saharan Africa (SSA). However, international evidence on the significance of physical inactivity as a critical driver of hypertension risk in SSA is sparse.

Purpose: This study assessed determinants of hypertension risk among a stroke-free population in Ghana and Nigeria.

Methods: Participants were 4,267 stroke-free individuals recruited in the Stroke Investigative Research and Education Network study from Nigeria and Ghana. Data on sociodemographic, lifestyle, cardiovascular risk and blood pressure were collected using standard protocols. Hypertension was defined as systolic blood pressure (SBP) ≥ 140mmHg or diastolic blood pressure (DBP) ≥ 90mmHg or a previous diagnosis or current use of antihypertensive medications. Odds ratio (OR) and 95% confidence interval (CI) for hypertension risk was estimated using logistic regression at $P < 0.05$.

Results: Mean age was 55.9 ± 14.7 and 1.8% were physically inactive. Mean SBP and DBP were 135.8 ± 24.2mmHg and 82.7 ± 14.3mmHg respectively, and 56.7% had hypertension. Factors associated with hypertension were physical inactivity (OR: 9.09; 95%CI: 4.03, 20.53), being diabetic (OR: 2.70; 95%CI: 1.91, 3.82), being older than 60years (OR: 2.22; 95%CI: 1.78, 2.77) and family history of cardiovascular diseases (OR: 2.02; 95%CI: 1.59, 2.56) and elevated waist circumference (OR: 1.01; 95%CI: 1.00, 1.02).

Conclusion(s): Physical inactivity was the leading risk factor for hypertension in this population. Community-oriented interventions promoting physical activity should help in the control of hypertension among sub-Saharan African population.