

Poster presentation

## Hypertension is the most common component of the metabolic syndrome in a cohort of NRTI-based HAART treated patients – a preliminary report

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from Ninth International Congress on Drug Therapy in HIV Infection  
Glasgow, UK. 9–13 November 2008

Published: 10 November 2008

*Journal of the International AIDS Society* 2008, **11**(Suppl 1):P126 doi:10.1186/1758-2652-11-S1-P126

This abstract is available from: <http://www.jiasociety.org/content/11/S1/P126>

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### Purpose of the study

The purpose of the study was to determine the prevalence of hypertension either alone or as a component of the metabolic syndrome (MS) as defined by the International Diabetes Federation (IDF) criteria in a cohort of HAART treated patients in an ambulatory HIV clinic in Nigeria. HAART use has been associated with an increased risk of metabolic and fat redistribution abnormalities including hypertension. NNRI-based regimens, most commonly used in the study setting, are debated to be associated with less risk of these metabolic abnormalities.

### Methods

Data from an ongoing cross-sectional study amongst HAART treated patients were analysed. Information on demographics, HIV infection, medication, personal and family history of cardiovascular risk factors and body fat redistribution was obtained. Physical examination, including anthropometry, skin fold thicknesses, targeted lipodystrophy assessment and blood pressure measurement, was done. Blood pressure was determined with a mercury sphygmomanometer. Blood samples for fasting plasma glucose, insulin and lipid profile were obtained. Metabolic syndrome (MS) was defined by the IDF metabolic syndrome consensus definition. The results are presented as mean  $\pm$  SD. Statistical significance was taken as  $p < 0.05$ .

### Summary of results

There were 72 persons studied; 22 (30.6%) males and 50 (69.4%) females. The mean age of the study population was 38.2  $\pm$  8.1 yrs and the mean duration of HAART was 2.25 yrs  $\pm$  0.99 yrs. MS was present in 21.9% of the study population. MS were older (43.6  $\pm$  10.1 vs. 36.8  $\pm$  6.8

yrs,  $p = 0.03$ ) and more likely to be males (37.5 vs. 21.9%). All (100%) the MS patients had SBP  $>130$  and/or DBP 85 mmHg vs. 38.6% of the patients without MS. The overall prevalence of hypertension in the study population was 51.2%.

### Conclusion

The association between hypertension and HAART has been frequently documented. Hypertension as a cardiovascular risk factor was prevalent in these young NRTI-based HAART treated patients and was the most common feature of the metabolic syndrome. There is a need for larger studies in this aspect of the adverse effect of HAART to be done especially countries with a huge burden of young HIV-infected patients.