SUMMARY

BACKGROUND: HIV/AIDS remains a big threat to human survival in the world with Sub-Saharan Africa having the highest burden of the disease. Cardiovascular diseases are found to be relatively common in HIV/AIDS as they live longer and CVD contributes significantly to morbidity and mortality and correlate significantly with immunosuppression. Cardiovascular risk factors and cardiac disease in people living with HIV/AIDS (PLWHA) have not been sufficiently studied in Nigeria.

AIM AND OBJECTIVES: This study aimed to determine the prevalence of conventional cardiovascular risk factors and cardiac diseases in adult PLWHA. The study also assessed the relationship between the conventional cardiovascular risk factors or cardiac diseases in PLWHA and demographic variables, highly active antiretroviral therapy (HAART) and CD4 count.

METHODOLOGY: A total of 300 subjects including; 100 consecutive HIV/AIDS patients, 100 consecutive HIV negative CVD patients and 100 consecutive HIV negative apparently healthy subjects. The participants were age- and sex- matched. The HIV/AIDS patients were recruited from the HIV clinic of FMC, Ido-Ekiti. Patients with CVD were recruited from the cardiology clinic of the hospital while the apparently healthy subjects were members of hospital staff. They were interviewed, examined and investigated.

RESULTS: The mean age was 39.78±5.94 years for HIV/AIDS patients, 41.79±10.66 years for CVD patients and 41.24±7.50 years for apparently healthy subjects. They were well matched in age and gender distribution (p=0.208 and p=1.000 respectively). The prevalence of cardiovascular risk factors was significantly higher in HIV/AIDS than apparently healthy subjects (43.0% vs 8.0%, p<0.001). The prevalence of cardiac diseases was also significantly higher in patients with
HIV/AIDS than apparently healthy subjects (66.0% vs 9.0%, p<0.001). The prevalent cardiovascular risk factors in HIV/AIDS patients were hypertension (22.0%), dyslipidaemia (19.0%), impaired fasting glucose (18.0%) and smoking (12.0%). The prevalent cardiac diseases in HIV/AIDS patients were left ventricular diastolic dysfunction (32.0%), pericardial effusion (29.0%), cardiac arrhythmias (20.0%), Valvular abnormality (20.0%), left ventricular systolic dysfunction (18.0%), and dilated cardiomyopathy (9.0%). Male HIV/AIDS patients have higher prevalence of cardiovascular and cardiac diseases than their female counterpart. HIV/AIDS patients on HAART had significant lower prevalence of left ventricular diastolic dysfunction when compared to HAART naïve HIV/AIDS patients (22.0% vs 42.0%, p=0.032). The study established an inverse relationship between CD4 count and cardiac diseases in HIV/AIDS. **CONCLUSION:** The results of this study showed that there was a high prevalence of conventional cardiovascular (CV) risk factors and cardiac diseases in patients with HIV/AIDS. HIV/AIDS appears to predispose to the development of pericardial effusion. Male gender also seems to be associated with higher prevalence of cardiovascular risk factors and cardiac diseases in this study. Left ventricular diastolic dysfunction was observed more in HAART naïve HIV-infected patients compared to HIV-infected patients on HAART. The prevalence of cardiac diseases in PLWHA increases with immunological decline.

It is recommended that regular cardiovascular screening and use of appropriate diagnostic facility such as ECG and Echo for early identification of CV risk factors and cardiac diseases among HIV/AIDS patients would encourage early treatment to prevent or reduce cardiovascular morbidity and mortality.