

HIV/AIDS: Emerging threat to cardiovascular health in sub-Saharan Africa

To the Editor: Public health in sub-Saharan Africa (SSA) is at a crossroads owing to an increasing non-communicable disease burden, with a sizeable contribution from cardiovascular disease (CVD). CVD is the top cause of death globally,^[1] and an estimated 80% of CVD-related deaths occur in low- to middle-income countries, including South Africa (SA).^[2] Although epidemiological transition is an important factor contributing to the rise in cardiovascular risk factors and CVD,^[3] the emerging interaction between communicable diseases such as HIV/AIDS and CVD should not be neglected. HIV infection is now recognised as an independent cardiovascular risk factor; however, the data are mainly from developed countries.^[4,5]

The paucity of studies investigating this question in SSA, where demographic and socioeconomic realities, HIV strains and antiretroviral (ARV) guidelines are different, is of great concern. In high-income countries, HIV-related CVD manifests as coronary heart disease;^[4] conversely, the incidence of coronary heart disease is believed to be relatively low in HIV-infected SSA populations.^[6] Most reports cite pulmonary hypertension, cardiomyopathy and tuberculous pericarditis as the predominant HIV-related cardiovascular conditions.^[6] A recent cross-sectional study in Soweto, SA, showed that only 2.4% of patients presenting with coronary heart disease for the first time were HIV-positive.^[7] We believe that these and other findings may not represent the full picture or future trends of HIV-related CVD in SSA. In recent years, data have started to emerge pointing to a high incidence of proatherogenic cardiovascular risk factors in HIV-infected participants, including hypertension, obesity, dyslipidaemia and endothelial activation.^[5,8,9] Unfortunately the vast majority of these studies are observational, cross-sectional or hospital based, with no longitudinal follow-up. This hampers thorough assessment of the incidence and nature of cardiovascular risk and disease trajectories in people living with HIV/AIDS. Furthermore, HIV infection is inextricably linked with antiretroviral therapy (ART), another putative cardiovascular risk factor. It is well established that several ARV drugs can result in increased cardiovascular risk;^[10] however, for as long as this possible link is not investigated in our context, serious future cardiovascular health challenges may arise, particularly in view of the massive ART roll-out programmes initiated in recent years.^[6]

In conclusion, we believe there is a real possibility that HIV infection and ART are emerging driving forces behind the rapidly

increasing cardiovascular risk factor and CVD rates in SSA. If the lack of population studies investigating this question persists, public health services may be even less prepared for the multiple burden of disease facing the continent.

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