

Metabolic syndrome and cardiovascular disease risk assessment among human immunodeficiency virus-infected individuals on antiretroviral therapy

Sir,

I read with interest the distinguished study by Idiculla *et al.*^[1] on the metabolic syndrome (MS) and cardiovascular disease risk assessment among Indian individuals infected with human immunodeficiency virus (HIV) on antiretroviral therapy (ART). On employing the National Cholesterol Education Program-Adult Treatment Plan III (NCEP ATP III) 2001 criteria, the authors found that HIV-infected individuals on ART had higher levels of triglycerides, low-density lipoprotein, and total cholesterol, but no increased cardiovascular risk compared to ART-naïve or HIV-uninfected individuals.^[1] I presume that these results ought to be taken cautiously. Apart from few limitations addressed by the authors, I presume that the following methodological limitation might be additionally relevant. It is related to the MS definition criteria employed in the study. The effect of this limitation could be explained in dual aspects. On the one hand, there are many definitions criteria for MS. These include the following: the International Diabetes Federation (IDF); the American Heart Association (AHA); and NCEP ATP III. Evaluation of these three criteria revealed that MS prevalence was significantly estimated greater on employing the AHA and IDF as compared to the ATP III definition and that AHA and IDF definitions were found more sensitive than that of ATP III in diagnosing MS.^[2] On the other hand, the ATP III 2001 criteria employed in the study by Idiculla *et al.*^[1] are currently no more worthy as it was set nearly more than a decade ago. To my knowledge, the new diagnostic MS criteria in Indian population have launched in 2016 to be employed in the clinical setting and researches. These criteria include the following: waist circumference >35" in men and >31" in women; serum triglycerides ≥ 150 mg/dl; serum

high-density lipoprotein cholesterol <40 mg/dl for men and <50 mg/dl for women; blood pressure $\geq 130/85$ mmHG; and fasting blood sugar >100 mg/dl (prediabetes).^[3] I wonder why Idiculla *et al.*^[1] did not refer to the Indian-specific MS criteria in their study. I presume that if they employed these criteria instead of NCEP ATP III 2001 criteria, different results might be obtained.

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Conflicts of interest

There are no conflicts of interest.

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