CARDIOVASCULAR AND METABOLIC COMPLICATIONS IN PEOPLE WITH HIV

Introduction

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With continuous antiretroviral therapy (ART) and viral suppression, life expectancy for people with HIV is approaching that of people without HIV. Despite a narrowing mortality gap between people with and without HIV, some estimates suggest a gap of up to 10 years, which remains clinically relevant.[1] With prolonged survival, age-related comorbidities have increased at higher rates among people with HIV than among those without HIV, including atherosclerotic cardiovascular disease, metabolic complications (e.g., weight gain, insulin resistance, dyslipidemia, and metabolic syndrome), cancer linked to pro-oncogenic viruses, and other aging-related conditions.[2-8] Three key factors that contribute to this burden of age-related noncommunicable diseases among people with HIV include: (1) an over-representation of traditional risk factors in this population, especially higher rates of smoking, diabetes, and dyslipidemia; (2) possible cardiometabolic toxicities from some antiretroviral drugs; and (3) HIV-associated chronic inflammation and immune activation, which are not completely abated by suppressive ART.[9-18]

In this context, the U.S. Department of Health and Human Services Panel on Antiretroviral Guidelines for Adults and Adolescents has developed this section to provide guidance on the prevention and optimal management of cardiovascular disease (CVD) and metabolic complications in people with HIV. This section is divided into four subsections: (1) HIV-associated inflammation and immune activation as a contributor to CVD and metabolic complications, (2) CVD risks among people with HIV, and (3) weight gain among people with HIV receiving ART. Given the relevance of HIV-associated immune activation and inflammation as a mediating factor across the comorbidities discussed, this topic is also included within this section of the guidelines.[19-24]

Other important CVD manifestations and metabolic complications are not currently covered in detail here, such as insulin resistance and risk for diabetes mellitus, metabolic syndrome, metabolic dysfunction–associated steatotic liver disease, heart failure, sudden cardiac death, and bone disease. At this time, guidance on the management of these conditions remains similar for people with and without HIV infection. Still, these conditions represent areas of active research, and as future evidence arises that informs management specific to people with HIV, this section may be expanded.

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