

FACTORS ASSOCIATED WITH THE DEVELOPMENT OF CORONARY ARTERY DISEASE IN PEOPLE WITH HIV

Trevillyan JM¹, Mushin A², Lee SJ³, Hearps^{3,4}, Hoy JF³.

¹Austin Health and University of Melbourne, ²Peninsula Health, ³Alfred Hospital and Monash University, ⁴Burnet Institute

Background:

People with HIV (PWH) are at increased risk for coronary artery disease (CAD). It is unknown whether this is due to HIV, exposure to antiretroviral therapy (ART), traditional risk factors, or a combination. This project aimed to describe factors associated with development of CAD in PWH.

Methods:

A case control study was performed. Cases (n=160) were PWH with a diagnosis of CAD, managed at the Alfred Hospital, Melbourne between January 1996 and December 2018. They were matched 1:2 by age and gender to PWH without a diagnosis of CAD (controls; n=317). Data collected from the Victorian HIV Database/medical record review included CAD risk factors, duration of HIV, nadir and at-event CD4 cell counts, HIV viral load, and ART exposure. Conditional logistic regression models were developed to explore the impact of traditional risk factors, HIV and ART for development of CAD.

Results:

Participants were predominantly male (n=465 [97.4%]), with a median age of 53 years. Factors associated with development of CAD on univariate analysis included hypertension (53.8% versus 24.9%, $p < 0.001$), current smoking (50.0% vs 41.2%, $p = 0.044$) and lower high-density lipoproteins ($p < 0.001$). There was no association between duration of HIV infection, nadir or at-event CD4 cell count and CAD. However, current and ever exposed to abacavir (34.4% vs 24.9%, $p = 0.023$; and 57.5% vs 48.6%, $p = 0.048$, respectively) was associated with an increased risk for CAD. In conditional logistic regression, hypertension (aOR = 10.30 95% CI 5.25 – 20.20), current smoking (aOR = 2.31, 95% CI 1.32 – 4.04), and current abacavir use (aOR = 1.87, 95% CI = 1.14-3.07) remained significantly associated with CAD.

Conclusion:

Traditional cardiovascular risk factors and exposure to abacavir were associated with CAD in PWH. This study highlights the need to rationalize ART and aggressively manage cardiovascular risk factors to reduce cardiovascular risk in PWH.

Disclosure of Interest Statement:

The authors have no conflicts of interest relevant to this work to declare.

Acknowledgement of Funding:

No pharmaceutical/industry grants were received for this study