

Title: Lipid-lowering Efficacy of Statins in HIV-infected patients on Antiretroviral Therapy with Hypercholesterolemia: A meta-analysis of randomized controlled trials

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Introduction: There is no established treatment strategy among human immunodeficiency virus (HIV)-positive patients on antiretroviral therapy (ART) who developed hypercholesterolemia. We intended to assess the effect of statin use on hypercholesterolemia among HIV-infected patients on ART.

Methods: A meta-analysis was done on all randomized controlled trials (RCTs) that studied the effect of statins with placebo or antiretroviral switching on hypercholesterolemia of HIV-positive patients on ART. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline was used for the study selection process. Two authors independently abstracted the data. Mean difference (MD) were pooled using inverse-variance random-effect method. A number of sensitivity analyses were performed.

Results: Seven RCTs were included with a total of 272 HIV-infected patients receiving ART. Five of these studies have low risk of bias while two had high risk of bias. Statins significantly reduced fasting total cholesterol (TC) (WMD = -1.12, 95% CI = -1.27, -0.97, P<0.00001; WMD = -26.20, 95% CI = -41.63, -10.77, P=0.0009) and fasting low-density lipoprotein-cholesterol (LDL-C) (WMD = -1.03, 95% CI = -1.66, -0.41, P=0.001; WMD = -23.34, 95% CI = -34.60, -12.08, P<0.0001) compared to placebo (after subgroup analysis) and ART switching.

Conclusion: Statins are effective in the treatment of hypercholesterolemia among HIV- infected patients on ART.

Keywords: statin, hypercholesterolemia, HIV, antiretroviral therapy

Biography

Gladelyn C. Escasura has completed her medical degree at the age of 26 years from Pamantasan ng Lungsod ng Maynila and residency training from Ospital ng Maynila. She is currently a 2nd year Cardiology Fellow in St. Luke's Medical Center Quezon City.

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