Lipopid lowering effects of rosuvastatin in HIV-infected patients on Highly Active Antiretroviral Therapy

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Introduction

- Highly active antiretroviral therapy (HAART) has transformed the human immunodeficiency virus (HIV) from a terminal disease to a manageable chronic disorder.
- Hyperlipidemia has become a common issue in the management of HIV due to factors, including the aging of our population, comorbid conditions, and the use of certain antiretrovirals, such as protease inhibitors (PIs) and efavirenz.1,2
- PIs are substrates and inhibitors of the cytochrome P450 (CYP450) system, particularly the CYP3A4 isoenzyme.1,3
- Most non-nucleoside reverse transcriptase inhibitors (NNRTIs) are also substrates and inducers of CYP3A4.

Discussion

- Rosuvastatin significantly decreased TC, LDL, and TC/HDL (16.8%, 24.5%, and 22.6%, respectively) in patients on HAART.
- LPV/r-treated patients had dramatically reduced lipid levels.
- TC and LDL values were lowered to a greater extent in patients treated with LPV/r versus EFV.
- No significant difference was found in the lipid-lowering effects of rosuvastatin between patients on FPV-containing regimens and patients on EFV or LPV.

Conclusions

- Rosuvastatin may have a role in the treatment of dyslipidemia in HIV-infected patients on HAART.
- Patients on LPV/r-based therapy appeared to receive the greatest benefit from rosuvastatin.
- Larger studies are needed to determine whether there is an actual difference in the efficacy of rosuvastatin among different antiretroviral regimens.

References


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