Reviewer’s report

Title: High frequency of Fredrickson's phenotypes IV and IIb in Brazilians infected by human immunodeficiency virus.

Version: 1 Date: 13 April 2005

Reviewer: Georg Behrens

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General
The paper describes a cross-sectional lipid analysis of HIV-infected patients receiving antiretroviral therapy. There is no control group nor analysis of different treatment regimens. Confirming earlier studies, combined hyperlipidemia was the predominant phenotype in these patients with a mean age of 35 years. Of all patients considered, 33% had a total cholesterol above 200mg/dL, less than 15% had a high LDL cholesterol, and 46% presented with triglycerides >150 mg/dL. The authors conclude that a significant proportion of patients is at increased risk for coronary heart disease and should receive specific treatment for dyslipidemia.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The manuscript lacks some important informations for a complete assessment. Comparison between antiretroviral therapy (e.g. protease inhibitors) would improve the value of the paper. The description of the data and figures needs to be clarified and completed (Table 1: The differences between cases and percent of dyslipidemic patients needs to be explained; Table 2: The number of patients needs to be given). The correlation between time on protease inhibitor and HDL-cholesterol and ApoA1 and others should be included as graphic depiction with the respective correlation coefficient (r-values). The relevance of these associations are only incompletely reflected by the statistical significance.

Overall, I feel that the authors overestimate their statements on lipid lowering therapy. Lipid lowering therapy should be considered in patients having a relevant cardiovascular risk (not risk factors). This is not only determined by the total cholesterol or LDL-cholesterol. The authors should discuss these issues and also consider the review by Grinspoon and Carr, N Engl J Med 2005.

In how many patients was the Friedewald equation inadequate because of triglycerides >400 mg/dL?
The description of the VLDL measurements needs to be included.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Abstract, first paragraph should be changed to HIV-Therapy has been recently associated with coronary heart disease. Page 9, 4th paragraph: How was hypocholesterinemia defined? Given that the authors did not measure cytokines any possible effect in this study is speculative and can not be substantiated by pre-HAART studies.
Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests: I declare that I have no competing interests