Reviewer’s report

Title: Reduced IgM Levels and Elevated IgG Levels against Oxidized Low-Density Lipoproteins in HIV-1 Infection

Version: 2 Date: 27 January 2014

Reviewer: Maria Izar

Reviewer’s report:

Major Compulsory Revisions: not applicable for this manuscript.

Minor Essential Revisions:

The manuscript by Yilmaz et al has been evaluated and received the following comments.

The study reports results of IgG and IgM antibodies anti-oxidized LDL in HIV+ patients with or without ARVT and in controls (HIV-). The authors found slightly lower IgM levels in HIV+, whereas higher IgG levels in this group of patients. They discuss that autoantibodies against oxidized LDL of IgM type are potentially atheroprotective, and that higher levels of IgG to different forms of oxidized LDL may have a dual role, considering immune-complex formation and the presence of immune complexes in the atherosclerotic plaque. On the other hand, it has been reported by other groups, including ours (Fonseca HA, et al, Cell Biochem Biophys. 2013 Dec;67(3):1451-60; Izar MC, et al, Diab Vasc Dis Res. 2013 Jan;10(1):32-9; da Fonseca HA, et al, Int J Cardiol. 2012 May 17;157(1):131-3; Brandão SA, et al, Am J Hypertens. 2010 Feb;23(2):208-14; and Santos AO, et al, Clin Chim Acta. 2009 Aug;406(1-2):113-8), that high titers of anti-OxLDL of IgG type may be related to less oxidized LDL being formed, due to less stimuli for lipid oxidation. They concluded that reduced IgM levels in combination with elevated IgG levels against oxidized forms of LDL in HIV+ individuals may reflect an increased risk of atherosclerotic cardiovascular disease. Subclinical or clinical atherosclerosis has not been evaluated in this study, therefore, the authors should avoid this commentary, which is an extrapolation and not a conclusion from the data.

In addition, the authors have divided the HIV patients in four small groups, what may have reduced the power of the study, considering the variability of laboratory assays, and this should be reported as a study limitation. The ART therapy, and the use of lipid-lowering agents should also impact the results, but the latter was not reported so far. LLT modify LDL oxidation and the antibody responses. As HIV treated patients develop dyslipidemia, the use of LLT should be reported. Another issue is related to dosages being performed in sera or plasma. Are the results of serum samples or plasma samples equivalent, or they need a correction factor?

Some improvement in English language should be performed.
Level of interest: An article of importance in its field

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I have no competing interests to declare.