

# Disturbance of HDL apolipoprotein AI metabolism in severe hyperlipidemic and lipodystrophic HIV patients on a protease inhibitor treatment

Khadija Ouguerram, Yassine Zair, Stéphanie Billon, Michel Krempf

► **To cite this version:**

Khadija Ouguerram, Yassine Zair, Stéphanie Billon, Michel Krempf. Disturbance of HDL apolipoprotein AI metabolism in severe hyperlipidemic and lipodystrophic HIV patients on a protease inhibitor treatment. 16th International Symposium on HIV and Emerging Infectious Diseases, Mar 2010, Marseille, France. BioMed Central, 7 (Suppl 1), pp.P90, 2010, Retrovirology. <10.1186/1742-4690-7-S1-P90>. <inserm-00663895>

**HAL Id: inserm-00663895**

**<https://www.hal.inserm.fr/inserm-00663895>**

Submitted on 27 Jan 2012

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



POSTER PRESENTATION

Open Access

# Disturbance of HDL apolipoprotein AI metabolism in severe hyperlipidemic and lipodystrophic HIV patients on a protease inhibitor treatment

Khadija Ouguerram\*, Yassine Zair, Stéphanie Billon, Michel krempf

From 16<sup>th</sup> International Symposium on HIV and Emerging Infectious Diseases  
Marseille, France. 24-26 March 2010

## Background

The aim of this study was to characterize the metabolic abnormalities resulting in low HDL apolipoprotein AI (HDL-AI) levels in lipodystrophy HIV infected patients during protease inhibitor therapy.

## Methods

Seven HIV infected patients, normolipidemic with no lipodystrophy (group A) and seven hyperlipidemic with lipodystrophy (group B) were studied. Patients are on protease inhibitors since at least six months. Patients were underwent *in vivo* kinetics of HDL-AI using a 14 h primed constant infusion of [5,5,5,<sup>2</sup>H<sub>3</sub>] leucine. Kinetic data were analyzed by monocompartmental model using SAMII program to drive metabolic parameters (FCR, Fractional Catabolic Rate, and APR, Absolute Catabolic Rate).

## Results

Subjects in group B showed significantly higher plasma triglycerides ( $p < 0.05$ ). HDL cholesterol and apolipoprotein AI (apoAI) were significantly ( $P < 0.05$ ) lower in group B compared to group A. HDL are more enriched in triglycerides in group B compared to group A ( $P < 0.005$ ). Kinetic study showed no change of fractional catabolic rate between two groups but significantly ( $P < 0.05$ ) lower APR in group B compared to group A.

## Discussion

These results showed that the hypertriglyceridemia and low HDL level associated with lipodystrophy in HIV infected patients during treatment is related essentially

to low absolute catabolic rate. As was almost reported, the HDL enriched in TG are quickly catabolised. In our patient from group B, although HDL were enriched in TG their FCR was normal suggesting a primary abnormality in apoAI synthesis and/or secretion.

Published: 11 May 2010

doi:10.1186/1742-4690-7-S1-P90

**Cite this article as:** Ouguerram et al.: Disturbance of HDL apolipoprotein AI metabolism in severe hyperlipidemic and lipodystrophic HIV patients on a protease inhibitor treatment. *Retrovirology* 2010 **7**(Suppl 1):P90.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at  
www.biomedcentral.com/submit



\* Correspondence: khadija.ouguerram@univ-nantes.fr  
INSERM U915, Nantes, France