



ORAL PRESENTATION

Open Access

Semen may harbor HIV despite effective HAART: another piece in the puzzle

Philippe Halfon¹, Claude Giorgetti², Hacène Khiri¹, Guillaume Pénaranda^{1*}, P Terriou², G Porcu-Buisson², Véronique Chabert-Osini²

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

Background

The aim of this study was to assess the prevalence of male patients with undetectable HIV levels in blood that had detectable levels of HIV in semen.

Methods

Three hundred and thirty-two HIV-1 infected men attending in a In vitro fertilization laboratory in Marseille (FRANCE) were included in the analysis with respect of the French law (absence of ongoing disease, CD4 count >200 cells/mm³, and stable HIV-1 RNA level). Overall, 394 paired blood and semen samples were provided between October 2001 and March 2009. The Cobas Taqman HIV-1 assay was used to quantify HIV-1 RNA in blood and in seminal plasma as previously described with a limit of quantification of 40 copies/ml in blood and in seminal plasma.

Results

Overall, 272 (69%) paired samples were concordant between blood plasma and seminal plasma for HIV-1 detection (inter-rater agreement $k = 0.12$); 253 (64%) samples were HIV-1 negative both in blood plasma and seminal plasma, and 19 (5%) samples were HIV-1 positive both in blood plasma and seminal plasma. Overall, 122 (31%) paired samples were discordant between blood plasma and seminal plasma for HIV-1 detection. Among these, 10 (3%) seminal plasma samples had detectable HIV-1 RNA although blood viral load was undetectable for at least 6 months under antiretroviral treatment.

Discussion

In conclusion, between 3% of patients with undetectable HIV levels in blood had detectable levels of HIV in semen. These data suggest that undetectable plasma HIV RNA means a lower risk of viral transmission through seminal fluid on a population level, but not necessarily at the level of the individual.

Author details

¹Laboratoire Alphabio, Marseille, France. ²Institut Médical de Reproduction, Marseille, France.

Published: 11 May 2010

doi:10.1186/1742-4690-7-S1-O12

Cite this article as: Halfon *et al.*: Semen may harbor HIV despite effective HAART: another piece in the puzzle. *Retrovirology* 2010 7(Suppl 1):O12.

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: g.penaranda@alphabio.fr

¹Laboratoire Alphabio, Marseille, France