

New scientific findings regarding a higher risk of cardiovascular events under highly active antiretroviral therapy

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Sustained HIV suppression depends on a combination of factors influencing each other. One of the most important factors is the management of numerous acute or chronic side effects, such as hematological abnormalities, dyslipidemia, polyneuropathy, mitochondrial toxicities, insulin resistance, organic toxicities and lipodystrophy. A current challenge is the prevention of cardiovascular events (CVE) evolving during therapy. Especially, HIV protease inhibitors are correlated with a higher risk of myocardial infarction and other cardiovascular events, even in middle-aged patients. The cause seems to be multifactorial, but is also partly unknown: Dyslipidemia plus early atherosclerosis are responsible for changes in the circulation system, leading to more and earlier CVE. However, also inflammatory processes in the vessels, which are maintained by the activation of thrombocytes seem to play a role. HIV-PLA I and II are two studies evaluating thrombocyte activation and thrombocyte/leucocyte adhesion under HAART in *ex-vivo in-vitro*. The HIV-PLA II study finishes in 2013. The final results of these two studies will be presented and factors discussed leading to the higher risk for CVE under HAART and its implications for future HIV drug development.

Biography

Nils von Hentig is reader of Clinical Pharmacology in the Department of Internal Medicine, Infectious Diseases Outpatient Centre, of the Johann Wolfgang Goethe University Hospital Frankfurt am Main, Germany. He is also collaborator in a private practice for general medicine and HIV/AIDS. He earned his M.D. at the University of Frankfurt in 2001 and started his scientific career in 2003 and has published more than 40 original articles and reviews since then. He is reviewer of the leading peer-reviewed journals in the area of antiviral research, internal medicine and pharmacology and is European executive editor of the Journal of Antivirals and Antiretrovirals. He founded a Germany-wide collaboration of clinics and laboratories involved in the field of clinical pharmacology of antiretroviral therapy, the PK-ART collaboration. He received the ASCPT Presidential Trainee Award 2006 of the American Society for Clinical Pharmacology and Therapeutics.

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