Journal of the International AIDS Society

Poster presentation

Open Access

# Impact of highly active antiretroviral therapy on cytomegalovirus viraemia, in the absence of specific anti-cytomegalovirus therapy

R Mihailescu*, S Paraschiv, V Arama, A Streinu-Cercel, D Otelea, OE Benea, M Iosipenco, M Mardarescu, M Luminos, D Munteanu, M Radulescu, C Chiotan, A Hristea and R Ungurianu

Address: Prof. Dr. Matei Bals National Institute of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania
* Corresponding author

*from* Ninth International Congress on Drug Therapy in HIV Infection
Glasgow, UK. 9–13 November 2008

Published: 10 November 2008

*Journal of the International AIDS Society* 2008, **11**(Suppl 1):P255 doi:10.1186/1758-2652-11-S1-P255

This abstract is available from: http://www.jiasociety.org/content/11/S1/P255



## Purpose of the study

In the era of highly active antiretroviral therapy (HAART), the incidence of opportunistic infections has decreased and their natural history has changed. This prospective study intended to evaluate the effect of HAART on cytomegalovirus (CMV) viraemia in co-infected patients, in the absence of specific anti-CMV therapy. We present the preliminary data of an ongoing Romanian research grant (CNCSIS 848/2006) on newly diagnosed HIV seropositives, in a tertiary care hospital – Prof. Dr. Matei Bals National Institute of Infectious Diseases, from Bucharest, Romania – between June 2006 to June 2008.

## Methods

Virological (HIV and CMV viraemia) and immunological (CD4) screening was performed every 3 months. The HIV viral load was performed by the commercial kit Cobas TaqMan HIV-1 test (Roche Diagnostics), and the CMV viremia by RoboGene Human Cytomegalovirus Quantification kit (aj Roboscreen). We retested all undetectable CMV viraemia samples found in patients with CD4 <50/mmc, by CMV PCR kit (Qiagen Diagnostics). Both PCR reactions were performed on ABI Prism 7000 (Applied Biosystems). All the patients having detectable CMV viraemia received HAART, including a protease inhibitor.

## Summary of results

Up to date, our study has included 102 HIV-infected subjects, who were seropositive for anti-CMV IgG antibodies. Median follow-up was 17.7 months. The study population had the M:F ratio 1:1, the median age of 29 years, and the median CD4 cell count of 175/mmc. None of the patients developed signs of CMV infection. At baseline, CMV viraemia was found detectable in 20 patients (range 59–475.818 copies/ml), of whom seven had CD4<50/mmc. At the second visit, five new cases of detectable CMV viremia were found (range 59–21.112 copies/ml), of which all had >50/mmc. Both molecular biology techniques used for CMV-DNA detection indicated similar results. Under HAART, all of the detectable CMV loads which were retested in time (19 out of the 25 samples) became undetectable at next visits, after a median of 14.5 weeks from the introduction of therapy.

## Conclusion

In conclusion, HAART effected the reduction of CMV viral load, without any specific anti-CMV therapy. As in the case of other opportunistic infections, history of CMV infection seemed to have been improved by controlling HIV infection. CMV viremia detection was useful in early diagnosis of asymptomatic CMV infection.