

Poster presentation

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Detection of HIV-1 antigen associated to erythrocytes in patients with undetectable viral load in plasma for more than one year

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Introduction

HIV-1 associated to erythrocytes was shown through RT-PCR techniques even in patients with undetectable plasma viral load giving evidence that the virus is still present in the blood. This observation might be useful to determine if the virus keeps on actively replicating at the moment of decision-making regarding interrupting or diminishing ARV treatment.

Objective

To determine erythrocyte-associated p24 antigen in patients with undetectable viral load for more than one year.

Materials and methods

HIV-1 infected individuals who presented at least three consecutive undetectable viral loads for more than one year. Erythrocyte-associated antigen was recovered after 24-hour incubation at 4°C. p24 antigen in the supernatant was determined through the ELISA.

Results

In 42 patients, the viral load and the antigen in plasma was undetectable. However, it was possible to detect p24 antigen adhered to erythrocytes in 18/42 individuals. It was also demonstrated that the antigen may be separated by using an acid treatment with glycine-CIH pH 3.2.

Conclusion

In almost 42.85% of the study population with undetectable viral load and p24 antigen in plasma erythrocyte-

associated p24 antigen was found, reflecting that the virus effectively replicates in these patients. According to these results, the erythrocyte-associated virus may be relevant for understanding the kinetics of infection. Moreover, the possible infectivity of the virus associated to these cells must be considered. The assays used are simple and can be carried out at any laboratory by using non-sophisticated equipment.

The follow-up of these patients will depict whether these determinations are useful for further therapeutic considerations.