There are no translations available.

C.75.New effective therapy, with low toxicity and low costs, implying new targets (D-Mannose receptor, sodium channel voltage dependant), and Resveratrol. Validation with the presentation of a clinical case.

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Background

Neglected data more or less recent, showed that the voltage-dependent sodium channel (Tran MKG,13th ISHEID2002,IXth Int.Conf.AIDS, Berlin 1993) and the Mannose receptor [Bandivdekar AH 14°ISHEID Toulon 2006 (PP 2.14); J Acquir.Immune.Defic.Syndr.2008,Virology.2008,J.Virol2012(86-4) 2153;J Reprod Immunol. 2011(92(1-2)1;Science2011(25 334(6059)1097;NeurobehavHIV Med 2011(1;3)41;PLoSOne 2011,6(11) e 28014] are involved in the transmission of HIV. In particular, the mannose Receptor seem essential for contamination since in a discordant couple, the uninfected male partner does not own this receptor(14° ISHEID, Bandivdekar A.H et al.). Resveratrol is a natural product which exhibits, in vitro, an antiviral activity against HIV-1. Its antiviral activity involves an anti TaT activity (Zhang HS,2009) and a synergy with nucleoside analogues((HerediaA,2008.).From these facts, we decided to change the therapy of a 67 years old patient, HIV+ since 28 years, under active antiretroviral therapy for 14 years, and under the following therapy(Reyataz 200mg twice daily, Kivexa(Abacavir 600mg + Epivir 300mg) once daily) since 3 years. The patient presenting many side effects(coronary heart disease, osteoporosis, lipodistrophy, libido disorders,…), we have, in order to reduce the long term toxicity of orthodoxic therapies, decided to replace successively his therapy by the following ones:

1)Epivir(150mg twice daily)+Reyataz(200mg twice daily)+Resveratrol TR (500mg twice daily), during 6 months;2) Epivir(150mg twice daily) + Resveratrol TR (500mg twice daily), D-Mannose 1g thrice daily, Omacor(ethyl esters of omega3 fatty acids) 1g twice daily,during 10 months. We have to recall that omega-3 fatty acids bind the Na+ channel(Isbilan Banu 2006);3) Resveratrol TR (500mg twice daily), D-Mannose 1g thrice daily, Omacor(ethyl esters of omega3 fatty acids) 1g twice daily, during one month.

Methods

Measurements of viral load, CD4 and CD8 and other blood parameters were followed during 18 months every month or 6 weeks.

Results

Our results show that over a period of 16 months, the patient remains undetectable(viral load<20 copies) and CD4 count does not change significantly from the one of the initial therapy(492+/-15 vs 504+/-30).Besides ,it seems that the CD4/CD8 ratio tended to increase(0,61 vs 0,50). Moreover activation of the immune system normalize(CD3+/HLA DR+ 7% vs 15%) and the NK strongly increases(24% vs 8%).

CD4(mega/L) :
492+/-15
478+/-35
504+/-30

CD4/CD8(%) :
0,50
0,56
0,61

VL(copies/ml) :
<20
<20
<20

CD3 HLADR(%) : **15** **7**

NK(%) : **8** **24**

Time(months) : **24** **0** **6** **16**

Therapy : **Kivexa+ Reyataz** **Epivir+ Reyataz+ Resveratrol** **Epivir+ Resveratrol +D-Mannose+omega3 fatty acids**

Variation of the immune parameters with the therapy

In contrast, deletion of Epivir in the therapy leads after one month only to an increase of the viral load to 8250 copies, with no significant change in CD4 count. Note however , we checked on this patient that in the absence of any therapy, the viral load goes up on the same period to 1000.000 copies**. It thus appears that it is possible to partially control the viral replication by alternative therapies with no toxicity.**

Conclusions

Our results show the **feasibility of HAART including Epivir, Resveratrol, D-mannose and omega3 fatty acids**. In addition, control of dyslipidemia induced by orthodoxic anti retrovirals should be unnecessary. These results paves the way for clinical trials with efficient, low toxicity and low cost agents; Moreover the fact that mutations on the Mannose Receptor and sodium channel(cell structures) are uncommon, make the appearance of resistance to such therapies unlikely. Determination of the dosage of the various compounds of this therapy for optimal efficiency remains to be done and could perhaps lead to the suppression of the last trading antiviral (Epivir).

Moreover, the **PrEP**, where a true debate is under way with Truvada, and for which"POSITIFS" is reluctant, could reach a consensus, if a pre exposure prophylaxy with non toxic and inexpensive compounds(resveratrol, D-mannose, omega3-fatty acids,…), excluding toxic orthodoxic antivirals, is proposed.