



ORAL PRESENTATION

Open Access

HTLV-1 infection modulates the immune response in HIV-HCV coinfecting patients and may increase spontaneous HCV clearance

Fabianna Bahia¹, Marcos H Abrahão¹, Eduardo M Netto¹, Patricia Bozza², Carlos Brites^{1*}

From 16th International Conference on Human Retroviruses: HTLV and Related Viruses
Montreal, Canada. 26-30 June 2013

Background

HTLV-1 often infect HIV-HCV coinfecting patients. The immunological consequences of triple infection are still unclear. Objective: to compare the plasma levels of 25 different cytokines in patients infected by HIV and HCV, according to their serological status to HTLV-1 infection.

Methods

We used the LUMINEX 100/200 analyzer to compare the plasma levels of 25 different cytokines for patients coinfecting by HCV and HIV (N=15), or by HTLV-1, HCV and HIV(N=18, 3 of them spontaneously cleared HCV).

Results

We detected a significant increase in median plasma levels of 6 different cytokines (Table 1) for patients coinfecting by HTLV-1. Only the 3 patients with HCV spontaneous clearance showed detectable levels of IL-15 (p=0.06). Levels of remaining 18 cytokines were similar for all groups.

Conclusions

Infection by HTLV-1, in HIV-HCV coinfecting patients, seems to induce a greater release of pro-inflammatory cytokines. This can be associated with a higher rate of HCV spontaneous clearance.

Table 1

Cytokines	Median Plasma levels of cytokines, according to type of infection			P value
	HIV+ HTLV (spontaneous clearance of HCV)	HIV+ HTLV +HCV	HIV+HCV	
	N = 3	N = 14	N = 15	
IL-1b	88,7	16,6	1,1	0,01
IL-2	280,4	72,7	15,1	0,01
FGF	57,8	26,3	14,3	0,03
IFN-g	1580,7	571,4	224,7	0,04
IP-10	70896,1	46985,6	3753,9	0,03
MIP-1a	15862,6	103,0	20,5	0,00
MIP-1b	14301,3	4732,3	666,5	0,01
TNF-a	1144,8	155,7	33,7	0,01

Authors' details

¹Laboratório de Pesquisa em Infectologia, Complexo Hospitalar Prof. Edgard Santos – Federal University of Bahia, Brazil. ²FIOCRUZ, Rio de Janeiro, Brazil.

Published: 7 January 2014

doi:10.1186/1742-4690-11-S1-O8

Cite this article as: Bahia et al.: HTLV-1 infection modulates the immune response in HIV-HCV coinfecting patients and may increase spontaneous HCV clearance. *Retrovirology* 2014 **11**(Suppl 1):O8.

¹Laboratório de Pesquisa em Infectologia, Complexo Hospitalar Prof. Edgard Santos – Federal University of Bahia, Brazil

Full list of author information is available at the end of the article