RETROVIROLOGY

MEETING ABSTRACT Open Access

Immunohistochemical and virological features of HTLV-1-associated myosites: a study of 13 patients from West Indies and Africa

Marion Desdouits[1], Olivier Cassar[1], Thierry Maisonobe[2], Alexandra Desrames[1], Achille Aouba[3], Olivier Hermine[3], Jacqueline Mikol[4], Marc Polivka[4], Isabelle Penisson-Besnier[5], Pascale Marcorelles[6], Fabien Zagnoli[7], Thomas Papo[8], Arnaud Lacour[9], Zahir Amoura[2], Julien Haroche[2], Patrick Chérin[2], Antonio Texeira[2], Anne-Sophie Morin[10], Franck Mortreux[11], Eric Wattel[11], Michel Huerre[12], Marie-Christine Cumont[12], Huot Khun[12], Sylviane Bassot[1], Sandra Martin-Latil[1], Graham Taylor[13], Antoine Gessain[1], Simona Ozden[1], Pierre-Emmanuel Ceccaldi[1,14*]

From 15th International Conference on Human Retroviruses: HTLV and Related Viruses
Leuven and Gembloux, Belgium. 5-8 June 2011

Background

HTLV-1 is associated with the onset of various inflammatory diseases such as HTLV-1 Associated Myelopathy / Tropical Spastic Paraparesis, uveitis, infective dermatitis or inflammatory myopathies. Here, we aimed to get new insights into the pathogenesis of HTLV-1 associated inflammatory myopathies (HAIM) by studying muscle biopsy specimens and blood samples from 13 HAIM patients.

Results

Mean age of patients was 52.2 years. 7 patients suffered from polymyositis (PM), and 6, from inclusion body myositis (IBM). Histopathological changes were mild to moderate in most patients. Tumor necrosis factor (TNF)-alpha and myeloid dendritic cells were detected in several patients' biopsies, and Human Leukocyte Antigen (HLA)-ABC, HLA-DR, and matrix metalloproteinase (MMP-2, -9), in most of them. Perforin was frequently detected but there were no apoptotic myonuclei. By means of in situ hybridization, we detected rare HTLV-1 infected infiltrating cells in the muscle tissue of 4 patients. The virus belonged to the cosmopolitan A subtype, transcontinental subgroup. Plasma anti-HTLV-1 antibodies titers were high, but the proviral load was not elevated when compared to asymptomatic HTLV-1 carriers. Myositis-associated autoantibodies were found in patients with HAIM as well as in HTLV-1 infected controls without HAIM, whereas IFN-gamma plasma levels were elevated in HAIM patients.

Conclusions

We describe 13 cases of HTLV-1 associated myositis, which show the classical anatomopathologic features of idiopathic myositis, with moderate muscle inflammation and atrophy. Proviral load was not elevated, but anti-HTLV-1 antiboides titer and IFN-gamma plasma levels were raised.

Author details
[1]Epidemiology and Physiopathology of Oncogenic Viruses Unit, CNRS 3015, Pasteur Institute, Paris, France. [2]Pitié Salpêtrière Hospital, Paris, France. [3]Necker Hospital, Paris, France. [4]Lariboisière Hospital, Paris, France. [5]University Hospital Center, Angers, France. [6]University Hospital Center, Brest, France. [7]Clermont Tonnerre Army Hospital, Brest, France. [8]Bichat Hospital, Paris, France. [9]University Hospital Center, Lille, France. [10]Beaujon Hospital, Clichy, France. [11]Oncology and Biotherapies Unit, Lyon University, Lyon, France. [12]Histotechnolgy and Histopathology Unit, Pasteur Institute, Paris, France. [13]Faculty of Medicine, Imperial College, London, UK. [14]Paris 7 University, Paris, France.

Published: 6 June 2011

doi:10.1186/1742-4690-8-S1-A41
Cite this article as: Desdouits *et al.*: Immunohistochemical and virological features of HTLV-1-associated myosites: a study of 13 patients from West Indies and Africa. *Retrovirology* 2011 **8**(Suppl 1):A41.

* Correspondence: pierre-emmanuel.ceccaldi@pasteur.fr
[1]Epidemiology and Physiopathology of Oncogenic Viruses Unit, CNRS 3015, Pasteur Institute, Paris, France
Full list of author information is available at the end of the article