Infectious Agents and Cancer

BioMed Central

Poster presentation

Open Access

Immunophenotypic analysis of AIDS-related diffuse large B-cell lymphoma and clinical implications in patients from AIDS malignancies consortium clinical trials 010 and 034

A Chadburn*[1], A Chiu[1], Y Lee[2], X Chen[1], E Hyjek[1], A Banhmam[3], A Noy[4], A Kaplan[5], J Sparano[6], K Bhatia[7], E Cesarman[1] and the Aids Malignancy Consortium

Address: [1]Weill Cornell Medical College, New York, New York, USA, [2]University of Alabama at Birmingham, Birmingham, Alabama, USA, [3]Nuffield Department of Clinical Laboratory Sciences, University of Oxford, Headington, Oxford, UK, [4]Memorial Sloan Kettering Cancer Center, New York, New York, USA, [5]University of California-San Francisco, San Francisco, California, USA, [6]Albert Einstein Comprehensive Cancer Center, New York, New York, USA and [7]National Cancer Institute, National Institutes of Health Washington, D.C., USA

* Corresponding author

from 11th International Conference on Malignancies in AIDS and Other Acquired Immunodeficiencies (ICMAOI): Basic, Epidemiologic, and Clinical Research
Bethesda, MD, USA. 6–7 October 2008

Published: 17 June 2009

Infectious Agents and Cancer 2009, **4**(Suppl 2):P14 doi:10.1186/1750-9378-4-S2-P14

This abstract is available from: http://www.infectagentscancer.com/content/4/S2/P14

Diffuse large B cell lymphoma represents a clinically heterogeneous disease, and several immunohistochemical strategies have been shown to help prognosticate clinical outcome. These include subdivision into germinal center (GC) and non-germinal center (non-GC) subtypes, proliferation index (measured by expression of Ki67), and expression of BCL-2, FOXP1 or Blimp-1/PRDM1. We sought to determine whether immunohistochemical analyses of biopsies from DLBCL patients with HIV infection are similarly relevant for prognostication.

We examined 82 DLBCLs from uniformly treated AIDS patients in AMC 010 (CHOP or CHOP-rituximab) and AMC 034 (EPOCH-rituximab) clinical trials, and compared the immunophenotype with survival data, Epstein Barr virus (EBV) positivity and CD4 counts. There was no significant difference in survival or CD4 counts between the patients with GC and non-GC subtypes of DLBCL, regardless of inclusion of rituximab in the treatment regimen. EBV assessment showed that this virus can be found in both subtypes of DLBCL, although less frequently in the GC subtype, and does not affect survival.

We also evaluated expression FOXP1, which is an independent adverse prognostic marker when expressed in immunocompetent patients with DLBCL, as well as expression of Blimp-1/PRDM1 and BCL-2. Expression of FOXP1, Blimp-1/PRDM1 or BCL-2 did not correlate with the outcome in patients with AIDS-related DLBCL. The only predictive immunohistochemical marker was found to be Ki67, where a higher proliferation index was associated with better survival suggesting a better response to therapy in patients whose tumors had higher proliferation rates. These data indicate that with current treatment strategies for lymphoma and control of HIV infection, commonly used immunohistochemical markers may not be clinically relevant in HIV-infected DLBCL patients.