

APPLICATION OF THE PRINCIPAL COMPONENTS ANALYSIS FOR THE ASSESSMENT OF THE RELIEF RATE AFTER THE INITIATION OF CHEMOTHERAPY IN CAMEROONIAN KAPOSI SARCOMA'S PATIENTS

Jacky Njiki Bikoi¹, P Ndom², D S Mbaga³, S H Riwom⁴ and F X Etoa⁵

University of Yaoundé 1, Cameroon

Adrinblastin-Bleomycin-Vincristin (ABV) chemotherapy has improved the survival of Kaposi Sarcoma (KS) infected people. In human herpes virus-8 (HHV-8, the causative agent of KS) endemic areas, the immune system is in the constant rate of activation, leading to a chronic immune activation against the virus. This chronic activation can lead to immune cells progressive depletion as T-lymphocytes and/or to inflammatory reaction and represent a major concern in patient care. However, many markers can measure those dysfunctions and they are often used without accounting for their possible interdependency. In the order to better understand the impact of this chemotherapy on the dynamics of immune activation and associated inflammation markers in Kaposi Sarcoma patients, the use of PCA for such task could be beneficial. In this view, four markers such as CD4 T-lymphocytes, IgG, Il-6 and Il-10 from the analysis of blood samples, collected between 1st Jul' 2014 and 31st Dec' 2015, on a total of 52 SK patients at the Yaoundé General Hospital, were analyzed. KS advanced stages and progressive response variables were associated to abnormal biomarkers levels post ABV therapy. At the end of this work, the ABV chemotherapy impacts on CD4 evolution and the persistence of biomarkers abnormal levels post treatment were observed. These results suggested that chemotherapy was not efficient to rise up immune activation and inflammation biomarkers to normal level.

j.njikibikoi@yahoo.fr