Pedro Horna, J Clin Exp Dermatol Res 2014, 5:2
http://dx.doi.org/10.4172/2155-9554.C1.013

OMICS Group Conferences
Accelerating Scientific Discovery

4th International Conference on
Clinical & Experimental Dermatology
April 14-16, 2014 Hilton San Antonio Airport, TX, USA

Flow cytometric and molecular studies in the diagnosis of cutaneous lymphomas

Pedro Horna
H. Lee Moffitt Cancer Center, USA

Morphologic evaluation of tissue biopsies and body fluids is often insufficient to establish a definitive diagnosis of cutaneous lymphoma. Multiparameter flow cytometry and immune receptor gene rearrangement studies provide an indispensable tool to demonstrate the neoplastic nature of lymphoid proliferations. At our Institution, we have evaluated the applicability of cell cluster analysis by flow cytometry to identify and quantify malignant T-cells separately from the reactive inflammatory background. We have demonstrated the applicability of flow cytometry on shave biopsies from patients with mycosis fungoides, revealing distinct clusters of malignant T-cells with frequent aberrant over expression of CD26. On patients with advanced stage and peripheral blood involvement, we have shown the occasional occurrence of two distinct Sezary cell subpopulations, the gradual disappearance of benign residual T-helper cells, and the feasibility of calculating absolute Sezary cell counts by flow cytometry to predict survival. Flow cytometry and gene rearrangement studies are extremely useful tools that complement morphologic assessment and support a definitive diagnosis of B-cell and T-cell cutaneous malignancies. Knowledge of the applicability and limitations of both techniques are essential for adequate test utilization and interpretation of results.

Biography

Pedro Horna is Assistant Member at H. Lee Moffitt Cancer Center and Assistant Professor at the University of South Florida, Tampa, FL. He practices as a hematopathologist in the Cancer Center, with a particular interest in cutaneous lymphomas and flow cytometry. In addition, he actively participates in basic immunology research at the H. Lee Moffitt Research Institute. Dr. Horna has authored several peer-reviewed publications and conference abstracts in immunology, flow cytometry and cutaneous lymphomas.

Pedro.Horna@moffitt.org