DEVELOPMENT OF WM SPECIFIC PHENOTYPING.

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The success of any flow cytometric assay for cells of a defined neoplastic entity is dependent on a specific phenotype which can distinguish the abnormal cells from normal mature cells and progenitors as well as other neoplastic entities. The purpose of this study was to determine whether such an immunophenotypic profile could be ascertained in WM thus allowing a clear distinction to be made between WM and other CD5 negative lymphoproliferative disorders, including MZL. We therefore performed extended immunophenotyping on a large series of CD5 negative B-cell lymphomas using a collection of antigens shown to be of importance in B-cell differentiation and function. In the case of WM, we believe we have identified several markers which allow distinction between the neoplastic cells of WM and both normal B-cells and other neoplastic lymphoproliferations. In a series of patients diagnosed with CD5- LPD, those presenting with an IgM monoclonal protein were compared phenotypically to other groups presenting with lymphocytosis, lymphadenopathy and cytopenias. The antigens showing the largest fold change between the WM and the other categories were CD38, LAIR1, CD22, CD11c and HLA-DR. The differences were most marked when comparing patients with a WM with those presenting with a lymphocytosis. Developing a disease specific immunophenotypic profile in WM will improve routine diagnostics and will also allow for the development of minimal residual disease assays.