IMMUNOPHENOTYPIC DIFFERENCES BETWEEN IGM MGUS AND WM

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The distinction between IgM MGUS and WM (symptomatic and indolent) relies in two main features, the unequivocal presence of bone marrow infiltration by lymphoplasmocytic lymphoma (as assessed by bone marrow biopsy) and the existence of signs or symptoms attributable to the disease. Nevertheless, there are some situations that remain unclear: 1) some patients do not have clear infiltration by morphology but clonal B cells can be demonstrated by other, more sensitive, techniques, such as flow cytometry or PCR; 2) in other patients, potential but no clear bone marrow infiltrates are present by morphology and the phenotypic studies are not conclusive either. The current guidelines proposed that *"these patients should be classified as MGUS until further data become available"*.

We have analyzed and updated our series of IgM monoclonal gammopathies in order to search for differential immunophenotypic characteristics that could help in the distinction between these entities. For this purpose we have studied 240 bone marrow samples that have been phenotypically analyzed at our institution. From these patients, 100 were diagnosed of a symptomatic WM (SWM), 70 of indolent WM (IWM) and another 70 of IgM MGUS, according to the criteria defined in the Athens workshop.

For the immunophenotypic analysis, both tumor populations (B-lymphocytes-BL and plasma cells-PC) were analyzed with a large panel of monoclonal antibodies: CD19, CD20, CD22, CD23, CD24, CD25, CD27, bcl2, CD10, CD103, CD11b, CD11c, CD138, CD38, CD45, CD5, CD56, cIg, sIg, FMC7, HLADR and IgM. Data regarding the clinical and biological features at diagnosis and of survival were also collected and analyzed.

The following parameters have been analyzed: 1) Percentage of infiltration by flow cytometry (both in the BL and PC populations). 2) Percentage of normal (non-tumor) residual BL and PC in these samples. 3) Antigenic profile of clonal BL and PC. All these features have been compared with the current diagnostic criteria in order to try to improve the diagnostic sensitivity. Results will be presented at the Workshop.