14q32 translocations discriminate IgM MM from WM.

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WM is characterized by the accumulation within the bone marrow of malignant lymphoid cells, and the secretion of a monoclonal IgM in the serum. The malignant cells are typically lymphoid cells with a lymphoplasmacytic morphology. Even though the diagnosis of WM is usually undoubtful, the differential diagnosis with IgM multiple myeloma (MM) might be possible. Actually, IgM MM are usually characterized by the accumulation of small mature plasma cells within the bone marrow, and the detection of a monoclonal IgM in the serum. However, in contrast with classical MM, they are rarely associated with extensive osteolytic lesions. We had the opportunity to analyze 8 cases of IgM MM. None of them presented extensive bone lesions. All cases were characterized by the presence of plasma cells with a lymphoplasmacytic morphology within the bone marrow. Molecular cytogenetic analysis revealed a t(11;14) in 7/8 of these cases. Because cytogenetic abnormalities in WM are poorly known, we have selected 13 WM cases, for whom frozen bone marrow cells were available. After thawing, the cells were analyzed by fluorescence in situ hybridization (FISH), for t(11;14). Because none of these 13 cases displayed t(11;14), we performed further FISH experiments, focused on the 14q32 region, and especially on the *IgH* gene. In contrast to MM (in which illegitimate *IgH* rearrangements are common), we did not detect any abnormality in the WM cases. In conclusion, even though the cells of origin in WM and MM are mature, heavily mutated cells, they differ by the *IgH* gene rearrangements. Especially in IgM MM, the search for t(11;14) might be useful in difficult cases to discriminate with WM.