

Session I: Incidence and Predispositions to WM

Abstract 103

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IgM Monoclonal Gammopathy of Undetermined Significance (MGUS) and Smoldering Waldenström's Macroglobulinemia (SWM). Robert A. Kyle, MD; Joanne T. Benson, BA; Dirk Larson, MS; Terry Therneau, PhD; Angela Dispenzieri, MD; Lee Joseph Melton III, MD; S. Vincent Rajkumar, MD Mayo Clinic, Rochester, MN, USA.

IgM monoclonal gammopathy of undetermined significance (IgM-MGUS) is defined as a serum IgM monoclonal protein < 3 g/dL, bone marrow lymphoplasmacytic infiltration < 10%, and no evidence of anemia, constitutional symptoms, hyperviscosity, lymphadenopathy, or hepatosplenomegaly. Monoclonal gammopathy of undetermined significance (MGUS) was diagnosed in 213 Mayo Clinic patients who were residents of 11 counties in southeastern Minnesota. Twenty-nine (14%) of these 213 patients developed non-Hodgkin's lymphoma (NHL, n = 17), Waldenström's macroglobulinemia (WM, n = 6), chronic lymphocytic leukemia (CLL, n = 3), and AL amyloidosis (AL, n = 3) with relative risks of 15-, 262-, 6-, and 16-fold respectively. The risk of progression was 1.5% per year. The level of serum M protein and the serum albumin level at diagnosis were independent predictors of progression. Smoldering Waldenström's macroglobulinemia (SWM) is defined as a serum IgM monoclonal protein > 3 g/dL and/or > 10% bone marrow lymphoplasmacytic infiltration but no evidence of symptomatic anemia, constitutional symptoms, or hyperviscosity. Forty-eight patients with SWM were identified at Mayo Clinic from 1974 to 1995. At diagnosis, hepatomegaly was noted in 10%, splenomegaly in 4%, and lymphadenopathy in 8%. The initial hemoglobin level ranged from 8.7 - 15.3 g/dL (median 11.7 g/dL). The serum monoclonal protein level at the time of diagnosis ranged from 1.5 to 5.2 g/dL (median 3.3 g/dL). IgM kappa accounted for 76%, IgM lambda 20%, and biclonal in 2 (4%). Immunofixation of the urine was positive in 37%. Serum IgA was reduced in 11 of 39 (28%) patients in whom it was measured at diagnosis and in 16 (41%) with IgG. Lymphoplasmacytic infiltration of the bone marrow ranged from 2% to 100% with a median of 29%. Thirteen (26%) had < 10% infiltration, while 15 (31%) had more than 50% infiltration. Significant baseline risk factors for progression included degree of bone marrow lymphoplasmacytic cell infiltration, size of the serum M protein, hemoglobin level, and reduction in serum IgA. The risk of progression to symptomatic WM was 53% at 5 years (10.5% per year). The median survival after progression to symptomatic WM was 5.2 years.