

Long-term follow-up of IgM monoclonal gammopathy of undetermined significance.

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Little effort has been made to quantitate adverse outcomes of monoclonal gammopathy of undetermined significance (MGUS) of the immunoglobulin M (IgM) class, which progresses to lymphoma or Waldenstrom macroglobulinemia, whereas IgA and IgG MGUS progress to multiple myeloma, primary amyloidosis (AL), or a related plasma cell disorder. From 1960 to 1994, IgM MGUS was diagnosed in 213 patients in southeastern Minnesota. The end point was progression to lymphoma or a related disorder, as assessed with the Kaplan-Meier method. The 213 patients were followed up for 1567 person-years (median, 6.3 years per patient). Lymphoma developed in 17 patients (relative risk [RR], 14.8), Waldenstrom macroglobulinemia in 6 (RR, 262), primary amyloidosis in 3 (RR, 16.3), and chronic lymphocytic leukemia in 3 (RR, 5.7). The relative risk of progression was 16-fold higher in the patients with IgM MGUS than in the white population of the Iowa Surveillance, Epidemiology, and End Results Program. Cumulative incidence of progression was 10% at 5 years, 18% at 10 years, and 24% at 15 years. On multivariate analysis, the serum monoclonal protein and serum albumin concentrations at diagnosis were the only risk factors for progression to lymphoma or a related disorder. Risk for progression to lymphoma or a related disorder at 10 years after the diagnosis of MGUS was 14% with an initial monoclonal protein concentration of 0.5 g/dL or less, 26% with 1.5 g/dL, 34% for 2.0 g/dL, and 41% for more than 2.5 g/dL.

PMID: 12881316 [PubMed]