PROGNOSTIC FACTORS IN WALDENSTRÖM'S MACROGLOBULINEMIA

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Waldenström's macroglobulinemia (WM) is a distinct clonal disorder of small lymphocytes that show maturation to plasma cells producing large amounts of monoclonal IgM. WM has a chronic, indolent course with highly variable prognosis. Several analyses of prognostic factors and staging systems have been proposed, including ours (Blood 1994;83:2939-2945). In the present study we analyze a wider patient population with an extended follow up, making the statistical analysis more robust. The inclusion criteria were the same as those previously published. A total of 215 patients (119 males) with a median age of 62.6 years (range 24.9-91.6) were retrospectively analyzed. The median overall follow up was 57.6 months (0.6-281), 58 (0.9-281) for living patients and 52.2 (0.6-261.3) for those who had died. All patients were treated with alkylating-based chemotherapy. The overall median survival was 77.2 months, without significant differences based on the duration of the previous MGUS phase. The Cox univariate analysis showed that the following variables were significantly correlated with overall survival: hemoglobin level, serum beta-2-microglobulin level, age, serum albumin level, erythrocyte sedimentation rate, platelet count, serum creatinine level and presence of cryoglobulins, while the serum concentration of the monoclonal IgM, white blood cell count, polymorphonuclear count, lymphocyte count, bone marrow lymphoplasmacytic infiltrate and gender were not correlated with survival. The value of beta-2-microglobulin was available in the subgroup of 60 patients diagnosed after 1990. The multivariate Cox analysis performed on the whole population showed that age, hemoglobin level and serum albumin level predicted survival. The addition of beta-2-microglobulin in a Cox stepwise selection showed that this parameter was by far the main prognostic determinant. Application of the Dhodapkar, Morel and Gobbi scoring systems to this population of patients showed that all three systems stratified the population into groups with significantly distinct prognoses. Our analysis indicates that four simple parameters: beta-2-microglobulin, hemoglobin, albumin and age are able to define the prognosis of patients with WM thoroughly. A prognostic index based on these parameters is capable of identifying variable groups of patients with different therapeutic needs.