Cytogenetic Analysis of 280 Patients With Multiple Myeloma and Related Disorders: Primary Breakpoints and Clinical Correlations

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Abstract of:

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Cytogenetic analysis of unstimulated short-term bone marrow cell cultures was performed on 280 patients with multiple myeloma and related disorders. In 65% of the cases, an additional short term B-cell stimulated culture was also examined. Chromosomally abnormal clones were found in 31% of the patients, 15% in Waldenström macroglobulinemia, 25% in monoclonal gammopathies, 33% in multiple myeloma, and 50% in plasma cell leukemia. Three primary chromosomal breakpoints were recurrently involved: 14q32, 16q22, and 22q11. Structural rearrangements of chromosome I were the most frequent (26% of the abnormal cases), but always as a secondary change. Rearrangements of band 14q32 were found in 22% of the abnormal cases. Among the multiple myeloma patients who showed an abnormal karyotype, 33 (46%) were hyperdiploid, most frequently with 52-56 chromosomes, 29 patients (40%) were pseudodiploid, and the remaining 12 cases (14%) were hypodiploid. A highly significant relation was observed between the presence of an abnormal karyotype and the following clinical parameters: stage III (P=0.0001), bone marrow plasma cell infiltration greater than 30% (P=0.0001), presence of bone lesions (P=0.0009), and β2-microglobulin levels greater than 4 mg/L (P=0.0001). *Genes Chromosom. Cancer 18:84-93, 1997.* © 1997 Wiley-Liss, Inc.

Ewing's tumor of the spine: report on seven cases including one with a 10-year follw-up

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This study analyzed the cases of seven patients who completed the Treatment Protocol of the University Clinic of Navarre for Ewing's tumor of the spine between 1982 and 1993. The surgical procedures aimed at gaining local control and recovering the neurological deficit are discussed. Poor results in the survival rate can be expected, as shown by the clinical study. Only two patients are alive, including one who is free of disease more than 10 years after surgery.