Myelopathies during the course of multiple myeloma.

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Abstract

BACKGROUND: The development of acute non-lymphoblastic leukaemia (ANLL) or myelodysplastic syndromes (MDS) secondary to treatment of multiple myeloma (MM) is well known. In some cases the simultaneous appearance of MM and ANLL has been described. METHODS: In this series the simultaneous appearance of MM and various myelopathies in 91 untreated patients with MM, and the development of myelopathies during the course of the disease in 72 treated patients were studied. RESULTS: Simultaneous appearance of MM (IgA/lambda) and refractory anaemia with ring sideroblasts (RAS) was observed in one case (1.1%). Development of myelopathies in treated patients with MM was found in 4 out of 72 cases (cumulative risk at 8 years 28.3%). In one case (IgG/lambda MM) a myeloproliferative disorder (MPD) developed 6 years after the initial diagnosis. Cytogenetic analysis was normal. In the second patient (IgG/k MM) a similar MPD was observed 5 years after the initial diagnosis. The karyotype was 46, XX, -5 + t (20;?). The third patient with lambda light chain disease developed RAS 11 months after the initial diagnosis. The karyotype was 46, XY/hypodiploidy + M. Finally, the fourth case (IgG/k MM) developed ANLL (M4) 28 months after the initial diagnosis and the karyotype was 45, XX, -7, t(1;3). CONCLUSIONS: The simultaneous appearance of MM and various myelopathies is unusual and probably represents a neoplastic transformation of a single progenitor in both lymphoid and myeloid malignancies. On the contrary, the development of myelopathies during the course of treated patients is a common phenomenon. The time of development and the cytogenetic findings strongly suggest that they are related to treatment with cytostatics.