A novel translocation t(1;7)(p36;q34) in three patients with acute myeloid leukaemia

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Abstract

Studies of large numbers of patients have enabled the identification of relatively infrequent chromosome changes, such as inv(3)(q21;q26), t(6;9)(p23;q34) and t(8;16)(p11;p11), whose clinico-biological significance is gradually becoming clearer. Translocations involving chromosomes 1 and 7 are relatively rare in myeloid neoplasias, being found in far less than 1% of cases; the rearrangement that occurs most frequently consists of an unbalanced translocation [t(1;7)(p11; p11)], resulting in complete loss of 7q, associated with therapy-related or environmentally-induced high-risk myelodysplasia. We recently observed three cases of acute myeloid leukaemia (AML) with a previously unreported balanced translocation t(1;7) (p36;q34). Case 1 underwent autologous bone marrow transplantation and remains alive in CR; cases 2 and 3 relapsed after 10 and 4 months, respectively. The response to chemotherapy observed in our cases suggests that variable clinical features might be present in the broad cytogenetic category usually referred to as '7q abnormalities' and contributes to an interesting previous observation of prolonged disease-free survival in a subset of AMLs with 7q- as the isolated chromosome change.