High-dose cytarabine and mitoxantrone in consolidation therapy for acute promyelocytic leukemia

The objective of our study was to evaluate high-dose cytarabine in consolidation therapy in patients with newly diagnosed acute promyelocytic leukemia (APL). Patients (age 16-60 years) received induction therapy according to the AIDA protocol (all-trans retinoic acid, idarubicin) followed by one cycle of ICE (idarubicin, cytarabine, etoposide) and two cycles of HAM (cytarabine 3 g/m(2) q12h, days 1-3; mitoxantrone 10 mg/m(2), days 2 and 3). From 1995 to 2003, 82 patients were enrolled. In total, 72 patients (88%) achieved a complete remission, and 10 patients (12%) died from early/hypoplastic death (ED/HD). A total of 71 patients received at least one cycle of HAM. Relapse-free survival (RFS) and overall survival (OS) after 46 months were 83 and 82%, respectively. White blood cell count above 10.0 x 10(9)/l at diagnosis and additional chromosomal aberrations were unfavorable prognostic markers for OS, whereas no prognostic markers for RFS were identified including FLT3 mutations. In conclusion, high-dose cytarabine in consolidation therapy for patients with newly diagnosed APL is an effective treatment approach.