

Younger age at diagnosis of acute promyelocytic leukaemia is associated with better long-term cognitive functioning

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Abstract

The evidence that all-trans retinoic acid (ATRA) is highly effective in the induction of blast differentiation and its subsequent use in clinical practice induced a dramatic improvement in the outcome of acute promyelocytic leukaemia (APL), especially when associated with standard chemotherapy. Further advances have been made in the treatment of this disease with more recent arsenic trioxide (ATO)-based regimens. To illustrate, a recent update of the APL0406 Italian–German randomized trial showed that disease free survival at 72 months was 96.6% and 79.8% for patients treated with ATRA–ATO and ATRA chemotherapy, respectively.

Given the notable therapeutic advances in this area, the number of APL survivors has substantially increased in recent years. However, little is known about the late effects of treatments and impact on patients' health-related quality of life (HRQOL).

We aimed to examine long-term functional aspects and symptom burden, by age at diagnosis (<30 vs. ≥30 years) in APL patients. This age cut-off was based on previous AML studies indicating better clinical outcomes for younger patients compared to their older counterparts. We also investigated whether the impact of comorbidities on HRQOL outcomes varies by age at diagnosis.