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Titel des Beitrags: Differential impact of allelic ratio and insertion site in FLT3-ITD-positive AML with respect to allogeneic transplantation.

Abstract: The objective was to evaluate the prognostic and predictive impact of allelic ratio and insertion site (IS) of internal tandem duplications (ITDs), as well as concurrent gene mutations, with regard to postremission therapy in 323 patients with FLT3-ITD-positive acute myeloid leukemia (AML). Increasing FLT3-ITD allelic ratio (P = .004) and IS in the tyrosine kinase domain 1 (TKD1, P = .06) were associated with low complete remission (CR) rates. After postremission therapy including intensive chemotherapy (n = 121) or autologous hematopoietic stem cell transplantation (HSCT, n = 17), an allelic ratio>= 0.51 was associated with an unfavorable relapse-free (RFS, P = .0008) and overall survival (OS, P = .004); after allogeneic HSCT (n = 93), outcome was significantly improved in patients with a high allelic ratio (RFS, P = .02; OS, P = .03), whereas no benefit was seen in patients with a low allelic ratio (RFS, P = .38; OS, P = .64). Multivariable analyses revealed a high allelic ratio as a predictive factor for the beneficial
effect of allogeneic HSCT; ITD IS in TKD1 remained an unfavorable factor, whereas no prognostic impact of concurrent gene mutations was observed. The clinical trials described herein were previously published or are registered as follows: AMLHD93 and AMLHD98A, previously published; AML SG 07-04, ClinicalTrials.gov identifier #NCT00151242.