

LETTER to the EDITOR

Survival Outcome of AML Patients with and without TKD Mutations

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Dear Editor

Acute myeloid leukaemia (AML) is a disease of heterogenic nature (Su et al., 2013; Ahmad et al., 2014). "Almost one third of AML patients have normal karyotype and fall in a standard risk group" (Kotaridis et al., 2001; Karabacak et al 2010). Significant proportion of AML cases have normal karyotype and characterized by the presence of prognostic markers such as FLT3-ITD, (internal tandem duplication) and TKD (point mutation), NPM1 and CEBPA (Ishfaq et al., 20012; Renneville et al., 2014).

Tyrosine kinase mutations induce "constitutive tyrosine phosphorylation, enhance cell proliferation and development of hematologic malignancies" (Liang et al., 2003). The clinical and prognostic relevance of the TKD mutations is less clear (Liang et al., 2003) and are more dependent on other mutations as reported by various authors (Thiede et al., 2002). More generally FLT3-TKD mutations is less frequent (7%) than internal tandem duplications (20-25%) (Weisberg et al, 2010). Although, there is "considerable heterogeneity" amongst subtypes. The frequency of FLT3-TKD mutations is not equal in all AML subtypes.

The association of FLT3-TKD mutations with outcome is controversial and more difficult to study because of low number of cases (Mead et al, 2008). In order to investigate the role of TKD mutation in TKD positive and TKD negative patient and their effect on overall survival we have examined small cohort of 31 patients. We performed Polymerase chain reaction and gell electrophoresis (Thiede et al., 2003). The data was analysed with SPSS version 20. We have not compared any other haematological parameters, regarding this study, except the overall survival in AML patients on the basis of presence and absence of FLT3-TKD mutation. Independent samples t-test was performed at 0.05 significance level. In statistical test, p-value (0.492>0.05) resulted in insignificant difference between the overall survival of AML patients with and without TKD mutation. Although TKD mutations have controversial outcome generally but there was no significant difference found in overall survival of TKD positive and TKD negative patients in this study.

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