EZH2 MUTATIONAL STATUS PREDICTS POOR SURVIVAL IN MYELOFIBROSIS


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SUMMARY:

The molecular pathogenesis of chronic myeloproliferative neoplasms largely remains to be elucidated, especially for myelofibrosis. The complexity of the molecular pathogenesis of these disorders is reinforced by discovery of additional mutations after JAK2V617F. In this study, researchers genotyped 518 subjects with primary myelofibrosis (PMF) and postpolycythemia vera/postessential thrombocytethemia MF for mutations of EZH2. EZH2 is a gene encoding for a factor involved in epigenetic gene expression regulation. In this large cohort of patients with MF, EZH2 mutations were detected in approximately 6% of PMF and in 5% of secondary MF. The analysis of hematologic-clinical correlates associated with the EZH2 mutation highlighted a more aggressive phenotype and a significantly negative impact on disease outcome in the PMF subgroup. Results of this study indicate that an EZH2-mutated genotype represents a novel variable independently associated with adverse outcome in patients with PMF.