

New biological markers in lymphoproliferative diseases

Summary

The prognosis of patients with lymphoid neoplasms is extremely variable. Reliable prognostic markers could allow the identification of patient subsets that may benefit from alternate approaches.

Epstein-Barr virus (EBV) is associated with approximately one third of Hodgkin lymphoma (HL) cases. EBV-DNA is often present in the plasma and whole blood of EBV-associated HL patients. However, the significance of EBV-DNA monitoring is debated. In a cohort of 165 adult HL patients EBV-DNA viral load was prospectively monitored. Our results suggest that assessment of plasma EBV-DNA viral load might be of value for estimation of prognosis and follow-up of patients with EBV-positive HL.

The role of the *TP53* gene's R72P polymorphism in NHL has been analyzed in several studies but it has not been studied in HL. We have evaluated the role of R72P in 340 NHL and 298 HL patients. Our results support the evidence that R72P is not a prognostic factor in Caucasian NHL patients, and they indicate its irrelevance for HL development or prognosis.

In a study of 73 patients with chronic lymphocytic leukemia we have assessed IgVH mutational status, presence of mutation in *TP53* gene and expression of CD38 and ZAP-70. Overall concordance between ZAP-70 expression and IgVH was 85%. Validation of the flow cytometry ZAP-70 detection was performed by comparison to the immunohistochemical analysis on histological sections and quantitative RT-PCR on the mRNA level; overall concordance was 86 %. Expression of ZAP-70 showed to be stable over time.