Abstract:

PURPOSE: Recent evidence has demonstrated that classical Hodgkin lymphoma (cHL) originates from mature germinal center B cells. However, only approximately 25% of cHLs express the classical B-cell marker CD20. There is very little, and controversial, information on the prognostic significance of CD20 expression in cHL with regard to failure-free (FFS) and overall survival (OS).

EXPERIMENTAL DESIGN: CD20 expression was investigated in a series of 119 cases of cHL treated at a single institution where complete clinical follow-up was available. The results were correlated to FFS and OS by the Kaplan-Maier method and uni- and multivariate analyses.

RESULTS: Hodgkin and Reed-Sternberg cells expressed CD20 in 20% (24 of 119) of the cases based on a cutoff of 10% positivity. Within a mean follow-up period of 12 years, univariate analysis revealed a significantly higher frequency of disease relapses in the CD20-negative group (30 of 95; 32%) compared with CD20-positive tumors (2 of 24; 8%; P = 0.022). Compared by the log-rank test, the mean FFS in CD20-negative cases (202 months) was considerably shorter than in the CD20-positive cases (286 months; P = 0.0195). In a multivariate analysis, CD20 expression was an independent positive prognostic factor for FFS in cHL patients treated from 1974 to 1980 (P = 0.035). This effect disappeared in the period from 1981 to 1999 (P = 0.266).
CD20-positive cHL shows a trend for better FFS and OS. However, improved treatment modalities seem to abolish these differences.