Clinicopathological significance of CD79a expression in classic Hodgkin lymphoma

ABSTRACT

Classic Hodgkin lymphoma (CHL) is a lymphoid neoplasia characterized by the presence of large tumor cells, so called Hodgkin and Reed-Sternberg (HRS) cells, originating from B-cells in an inflammatory background. Since the clinical significance of B-cell markers has not yet been fully elucidated, this study aimed to clarify the clinicopathological significance of CD79a in 55 patients with CHL. They were immunohistochemically divided into two groups, comprising of 20 CD79a-positive and 35 CD79a-negative cases. There was no significant correlation between CD79a and CD20 expression ($r_s = 0.125, P = 0.362$). CD79a-positive cases tended to be older in age, at onset ($P = 0.011$). There was no significant correlation between CD79a-positivity and clinical stage ($P = 0.203$), mediastinal involvement ($P = 0.399$), extranodal involvement ($P = 0.749$), and laboratory findings, including serum levels of lactate dehydrogenase ($P = 1$) and soluble interleukin-2 receptor ($P = 0.251$). There were significant differences in overall survival (OS) ($P = 0.005$) and progression-free survival (PFS) ($P = 0.007$) between CD79a-positive and CD79a-negative cases (5-year OS: 64.6% and 90.5%; 5-year PFS: 44.0% and 76.6%, respectively). Five cases, in which the majority (> 80%) of HRS cells expressed CD79a, consisted of 4 males and 1 female, aged between 52 and 81 years; 4 of them were in limited clinical stage. We concluded that CD79a-positive CHL may have unique clinicopathological features.