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CD200 as a Valuable Marker for Differentiating between CLL and Other B-cell Lymph Proliferative Disorders

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KEYWORDS Biomarkers. Chronic Lymphocytic Leukaemia. Immunophenotyping. B-Chronic Lymphoproliferative Disorders. Diagnostic Marker

ABSTRACT Chronic lymphocytic leukaemia (CLL) being the commonest subtype of mature B-cell lymphoid neoplasms need to be differentiated correctly from other B-chronic lymphoproliferative disorders (BCLPD). CD200 is being an essential marker for prognosis and diagnosis of CLL. Sixty patients diagnosed with BCLPD were evaluated for CD200 expression with eight-colour flow cytometry. An integration of modified Matutes score and CD200 were applied for CLL diagnosis. The overall immunophenotype of CLL patients in this study showed significant, frequent expression of CD5, CD22, CD23, CD43 and CD200. Atypical versus typical CLL patients' phenotype comparison revealed significant lower expression of CD5 and CD43 with higher expression of CD79b in atypical CLL patients. CD200 was expressed significantly higher in CLL patients (typical and atypical) than in MCL patients who showed dim CD200 expression in only twenty-five percent of patients. The inclusion of CD200 within the diagnostic markers can empower the modified Matutes score accuracy for CLL.