CD20 positivity in classical Hodgkin's lymphoma: Diagnostic challenge or targeting opportunity

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Abstract

BACKGROUND:

It is now well established that Hodgkin cells are clonal B cells with a CD30 and CD15 phenotype. However, on immunohistochemistry, in our experience and the experience of others, CD20 positivity in an otherwise typical classical Hodgkin's Lymphoma is not uncommon and if associated with CD15 negativity poses a potential diagnostic trap and is likely to be called B-NHL.

OBJECTIVE:

To assess the frequency of B-cell related antigens CD20 and CD79a in classical Hodgkin's Lymphoma.

MATERIALS AND METHODS:

A total of 91 consecutive cases of classical Hodgkin's Lymphoma were analyzed for coexpression of CD20 and CD79a. Both males and females of all ages were included in this study. All cases of nodular lymphocyte predominant Hodgkin's Lymphoma were excluded. All the cases were stained with a panel of antibodies including LCA, CD20, CD79a, CD30, CD15, CD3, EMA and Alk. Protein.

RESULTS:

All 91 cases of classical Hodgkin's Lymphoma showed negativity for LCA and positivity for CD30. Eighteen cases (19.8%) showed distinct membrane staining with CD20 in most of the large atypical cells. However, out of these, only 7 cases (7.7%) showed CD79a co-expression, which was largely focal. CD15 negativity with CD20 positivity was seen in 7 (7.7%) cases of otherwise typical classical Hodgkin's Lymphoma.

CONCLUSIONS/RECOMMENDATIONS:

CD20 expression is frequent in classical Hodgkin's Lymphoma and our results are in consensus with reported literature on this subject. In these cases, LCA negativity of large cells was extremely useful in clinching the right diagnosis.