

The inducible T-cell co-stimulator molecule is expressed on subsets of T cells and is a new marker of lymphomas of T follicular helper cell-derivation.

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Source

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Abstract

BACKGROUND: T follicular helper (T(FH)) cells reside in the light zone of germinal centers and are considered the cell of origin of angioimmunoblastic T-cell lymphoma. Recently, CXCL13, PD-1 and SAP were described as useful markers for T(FH) cells and angioimmunoblastic T-cell lymphoma but also reported in some peripheral T-cell lymphomas, not otherwise specified.

DESIGN AND METHODS: In the present study the expression pattern of ICOS protein was investigated by immunohistochemistry-based techniques in routine sections of normal lymphoid tissues and 633 human lymphomas.

RESULTS: Cells strongly positive for ICOS were restricted to the light zone of germinal centers and co-expressed T(FH)-associated molecules. In addition, weak to moderate ICOS expression was observed in a small proportion of FOXP3-positive cells. In lymphomas, ICOS expression was confined to angioimmunoblastic T-cell lymphoma (85/86), peripheral T-cell lymphomas of follicular variant (18/18) and a proportion of peripheral T-cell lymphomas, not otherwise specified (24/56) that also expressed other T(FH)-associated molecules.

CONCLUSIONS: ICOS is a useful molecule for identifying T(FH) cells and its restricted expression to angioimmunoblastic T-cell lymphoma and a proportion of peripheral T-cell lymphomas, not otherwise specified (showing a T(FH)-like profile) suggests its inclusion in the antibody panel for diagnosing T(FH)-derived lymphomas. Our findings provide further evidence that the histological spectrum of T(FH)-derived lymphomas is broader than previously assumed.

Comment in

* Haematologica. 2010 Mar;95(3):356-8.

PMID: 20207847 [PubMed - indexed for MEDLINE] PMCID: PMC2833073

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