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quantity of MME prescribed at discharge correlated with higher pain scores at the first postoperative visit (r = 0.25, p = 0.02) but not the second postoperative visit (r = 0.17, p = 0.15). There was no statistically significant association between MME prescribed and fracture characteristics or patient variables.

Conclusion: Postoperative opioid use correlated only with subjective, patient reported pain at the first postoperative visit, but did not correlate with injury mechanism, fracture characteristics, or patient variables. ∎

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CD24 Expression in Follicular Lymphoma: An Alternative B-Cell Marker in Therapy Selected, Recurrent Lymphoma

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Program: Pathology and Microbiology

Type: Original Research

Background: The rapidly expanding use of antigen targeted therapies, such as anti-CD19, anti-CD20 and anti-CD22, in B-cell malignancies will require the application of additional B-cell-associated antigens in the assessment of residual disease. CD24 is a pan B-cell marker that undergoes significant surface density changes during normal maturation. In contrast to the loss of CD24 expression in normal follicles, we observed that follicle center derived lymphomas retain CD24 expression. Our aim was to determine the percentage of follicle center lymphomas with aberrant CD24 expression.

Methods: We reviewed 334 patients with a diagnosis of follicular lymphoma (FL; 228), large cell lymphoma of follicular origin (59) or B-cell lymphoma of follicular origin (47) by flow cytometry from October 2012 to August 2018. Cases without a confirmed tissue diagnosis of FL or diffuse large B-cell lymphoma (DLBCL) were excluded leaving 113 patients with FL, 38 patients with CD10-positive DLBCL and 12 patients with mixed FL/DLBCL. We analyzed the percentage of patients with CD24 positive lymphomas in each of the three diagnostic categories.

Results: We found that CD24 expression was retained in 89% of FLs (101/113), 63% (24/38) of DLBCLs and 42% (5/12) of mixed FL/DLBCL. Five cases of CD20 negative FL were CD24 positive.

Conclusion: Our results show the utility of aberrant CD24 expression in the identification of follicular lymphoma by flow cytometry. ∎

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Performance of the Lymph2Cx Cell of Origin Classifier of Diffuse Large B-Cell Lymphoma in Comparison to Two Immunohistochemical Algorithms

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Background: Diffuse large B-cell lymphoma (DLBCL) is divided into cell-of-origin (COO) groups: germinal center B-cell (GCB), non-GCB also known as activated B-cell (ABC) and intermediate/unclassified subgroups by mRNA gene expression profiling (mGEP). Immunohistochemical (IHC) classification algorithms, such as the Hans and Choi, were developed in lieu of mGEP on microarray, which could not analyze formalin fixed paraffin embedded (FFPE) tissue. The Nanostring Lymph2Cx assay is capable of RNA gene expression profiling on FFPE tissue.

Methods: We studied 70 cases of DLBCL analyzed with the Lymph2Cx. Immunohistochemistry was performed on FFPE tissue sections using antibodies for CD10, BCL6, MUM1, GCET1 and FOXP1. Our aim was to determine the concordance