The 65th ASH Annual Meeting Abstracts

ONLINE PUBLICATION ONLY

623.MANTLE CELL, FOLLICULAR, AND OTHER INDOLENT B CELL LYMPHOMAS: CLINICAL AND EPIDEMIOLOGICAL

Is Breast Involvement in Marginal Zone Lymphoma Associated with Worse Outcomes? a Nationwide Analysis

Mohammad M Alhousani, MD[1], Kiley Felton, CRNP[2], Kathleen Faringer, PA-C[3], Cyrus Khan, MD[4], John Lister, MD[5], Yazan Samhouri, MD[6]

[1] Allegheny Health Network Cancer Institiute, Sewickley, PA
[2] Allegheny Health Network Cancer Institute, Pittsburgh, PA
[3] Allegheny Health Network Cancer Institute, pit, PA
[4] Allegheny Health Network, Pittsburgh, PA
[5] Western PA Cancer Inst., Pittsburgh, PA
[6] Allegheny Health Network Cancer Institute, Pittsburgh

Background

Marginal zone lymphoma (MZL) is the second most common indolent non-Hodgkin's lymphoma (NHL). It accounts for 6% of all B-cell lymphomas. Several MZL subtypes are recognized in the World Health Organization classification with the following rates :70% Extranodal marginal zone lymphoma (EMZL) of mucosa-associated lymphoid tissue (MALT lymphoma), 10% splenic MZL and 20% nodal MZL. MZL involving the breast, is a rare occurrence, it constitutes 1.7-2.2% of all extranodal NHLs and 0.04-0.5% of all malignant neoplasms of the breast (P L Cohen, 1991) and (M Vasei, 1997). Involvement of the breast by a primary lymphoma like DLBCL portends a more aggressive behavior but data is lacking in indolent lymphomas like MZL. We assume that patients with EMZL involving the breast will require earlier treatment compared with nodal MZL. In this population-based analysis we intend to examine this theory and investigate predictors of breast involvement in MZL and its outcomes.

Methods

We conducted a retrospective cohort analysis using de-identified data accessed from NCDB. The NCDB provided records of 17,198 patients diagnosed with nodal MZL and 1250 patients diagnosed with EMZL involving the breast between 2004 and 2016. We excluded patients without histologic or cytologic confirmation of the diagnosis. We also excluded patients who received treatment outside the reporting facility and patients missing survival data. Exploratory analysis of the patient groups was performed. Summary statistics are presented as percentages for categorical data and median with interquartile range for quantitative data. Chi square test was used to compare categorical variables and t-test was used to compare means. Multivariate regression models were used to analyze the predictors of breast involvement and survival.

Results

We identified 11,130 patients with nodal MZL and 769 patients with EMZL involving the breast. The median age was 68 (IQR 58-77), there were 56.5% females. Majority of the patients were non-Hispanic whites (85.9%), had a government insurance (58.5%), had comorbidity score of 0 (78.6%), belonged to a metropolitan area (86.2%), and were treated at a comprehensive community cancer centers or academic programs (79.1% combined). Black race, receiving treatment in a comprehensive community cancer center, and having insurance were associated with more breast involvement of MZL. While younger age was associated with less breast involvement. Median follow up was 9.1 years (IQR 8.8-9.5). Black race was associated with worse survival (HR 1.1, 95CI 1.0-1.3, p 0.004). Receiving treatment in a comprehensive community cancer center (HR 0.84, 95CI 0.76-0.93, p $\leq$ 0.01), older age (HR 0.996, 95CI 0.993-0.999, p 0.003), and living in an urban area (HR 0.92, 95CI 0.84-0.99, p 0.03) were associated with better survival. Breast involvement did not affect survival (HR 1.02, 95CI 0.93-1.12, p 0.71). The average days to start treatment in patients with EMZL involving the breast was 48 compared with 37 in nodal MZL (p $\leq$0.01).

Conclusion

Our study highlights clinical and socioeconomic predictors of breast involvement in MZL. Breast involvement in the whole cohort was not associated with worse clinical outcomes and our data does not suggest a different treatment approach for this patient population. Although, African American patients tend to have more breast involvement in MZL and it was associated with decreased survival. Our study is limited by its retrospective nature and its inherent selection bias, adjustment for baseline characteristics using univariate and multivariate analyses was used to mitigate this bias.

Disclosures No relevant conflicts of interest to declare.