Conference Abstracts

Survival outcomes and prognostic analysis in triple-negative invasive lobular carcinoma: A SEER database study

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BACKGROUND:

Triple-negative invasive lobular carcinoma (TN-ILC) is a rare and poorly studied tumor. This study aims to identify prognostic factors for TN-ILC and compare the overall survival between TN-ILC and triple-negative invasive ductal carcinoma (TN-IDC).

METHODS:

A total of 46,496 patients with stage I-III TN-IDC and TN-ILC were identified from the Surveillance, Epidemiology, and End Results database (SEER) between 2010 and 2018. Demographic and clinical characteristics were compared between the TN-ILC and TN-IDC using the χ^2 test for categorical variables. The 3- and 5-year overall survival was assessed utilizing Kaplan Meier curves and compared between TN-ILC and TN-IDC using log rank test. Further assessment of prognostic factors for TN-ILC was assessed in a multivariate Cox proportional hazard regression, including age at diagnosis, race, grade, TNM stage, type of surgery, chemotherapy, and radiation therapy.

RESULTS:

A total of 45,806 patients of TN-IDC and 690 patients of TN-ILC were included in the analysis. Compared with TN-IDC, patients with TN-ILC were older (median age at diagnosis: 67 vs. 59), were more likely to have moderate- or well-differentiated histology (62.4% vs. 16.9%), higher TNM stage (Stage III: 30.7% vs. 14.8%), undergo mastectomy (56.5% vs. 43.7%), and less likely to receive chemotherapy (59% vs. 75.1%) and radiotherapy (49.3% vs. 43.5%). There was no significant difference in the overall survival (OS) between TN-IDC and TN-ILC (HR 1.03, 95% CI 0.89-1.19, $p=0.68$) in multivariate analysis. Poorly differentiated or undifferentiated grade, higher stage, and not undergoing surgery were associated with poor prognosis in TN-ILC in multivariate analysis. Still, administration of chemotherapy was not associated with improved survival (HR 0.80, 95% CI 0.56-1.12, $p=0.19$).

CONCLUSION:

Our study demonstrates distinctive clinicopathologic characteristics of TN-ILC and the prognostic factors affecting the survival outcomes. Interestingly, administration of chemotherapy was not associated with overall survival in TN-ILC.