Prognostic value of lymph node ratio in poor prognosis node-positive breast cancer patients in Saudi Arabia.

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Abstract

AIM: Women in Saudi Arabia develop breast cancer at a young age with high prevalence of poor prognostic features. Because of such features, it is necessary to examine prognostic factors in this population. One such factor is the prognostic role of lymph node ratio (LNR).

METHODS: We performed retrospective analyses of patients with invasive non-metastatic breast cancer who underwent axillary lymph node dissection and had one or more positive axillary lymph nodes.

RESULTS: Two hundred and seventeen patients were considered eligible for the analysis. The median age was 46 years. At a median follow-up of 39.8 months, the median disease-free survival (DFS) was 67.3 months (95% CI, 50.4 to 84.3 months). Neither the classification of patients based on positive lymph node (pN) staging system, nor the absolute number of pN prognosticated DFS. Conversely, age ≤ 35 years at diagnosis, grade 3 tumors and the intermediate (>0.20 to ≤ 0.65) and high (>0.65) LNR categories were the only variables that were independently associated with adverse DFS. Using these variables in a prognostic model allowed the classification of patients into three distinctive risk strata. The overall survival (OS) in this series was 92.5 months (95% CI, 92.1-92.6). Only ER negative tumor adversely influenced OS.

CONCLUSION: Analysis of survival outcome of mostly young patients with early breast cancer identified adverse prognostic variables affecting DFS. If the utility of the derived model including LNR is proven in a larger patient population, it may replace the use of absolute number of positive axillary lymph nodes.