13. COULD LYMPH NODE EVALUATION BE ELIMINATED IN NEARLY 50% OF WOMEN WITH EARLY STAGE ER/PR POSITIVE BREAST CANCER?

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Background: In 2016, the Society of Surgical Oncology introduced a Choosing Wisely guideline recommending against routine axillary staging in women 70 years or older with clinically node negative, invasive, hormone-receptor positive breast cancer. The premise being that hormonal therapy is standard for these patients, therefore, the omission of axillary staging should not result in increased rates of locoregional recurrence and thus should not impact breast cancer mortality. Although, axillary staging can be individually considered if staging could potentially impact systemic therapy decisions. Due to their concern that this guideline could result in older women with positive nodes missing necessary treatment the Mayo Clinic developed a nomogram for women over 70 designed to distinguish between a low and high-risk group of patients. High risk women would continue to have axillary staging and low risk women could avoid axillary staging. The purpose of this study was to validate the Mayo Clinic rule in women of all ages.

Methods: A retrospective review was conducted of female patients diagnosed with breast cancer of all ages from one breast surgeon from January 1, 2006 through March 1, 2018. Eligible patients had clinically node negative, invasive, hormone receptor positive breast cancer. The Mayo Clinic rule was applied to our patient population to determine whether lymph node status could be predicted in all ages. Accuracy, true and false negatives, and alteration of treatment based on lymph node status was evaluated.

Results: A total of 619 patients met inclusion criteria. Utilizing the Mayo Clinic rule, 46.7% (n=289) of women met low risk criteria. The proportion of low-risk women with unexpected positive lymph nodes was 10.0% (n=29), which was slightly higher than the false negative rate seen with the Mayo Clinic study (FN rate 7.8%), but this difference was not statistically significant (p=0.167). Upon evaluation of those 29 women, 20 had their treatment altered secondary to positive lymph nodes, and 9 did not have their treatment changed. Six of those 9 patients avoided chemotherapy secondary to a low genomic recurrence score.

Conclusion: These data suggest that the Mayo Clinic nomogram is reproducible among women with clinically node negative, hormone receptor positive breast cancer, but has a consistent 7-10% false negative rate. This rate may be considered unacceptable if the knowledge of positive lymph nodes is the main reason for adjuvant chemotherapy and/or radiation therapy as was the case in 69% of patients in our study (20/29). The false negative rate may be acceptable if this does not impact the woman’s treatment as was the case in 31% in our study (9/29). Nearly 50% of women with hormone receptor positive breast cancer fall into the low risk category and could avoid axillary staging, but 7-10% of those patients will have unexpected positive lymph nodes. This continues to be of importance if knowledge of lymph node status alters the patient’s post-surgical treatment.