Oral Abstracts

(S001) Regional Nodal Irradiation in Elderly Node Positive Women: A Patterns of Care Study on Changes in Utilization Over a Decade
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Methods: Subjects were 10,863 women referred between 2001-2011, an era in which re-excision was recommended for close/positive margins. All women underwent breast-conserving surgery plus adjuvant whole breast ± boost radiotherapy (RT). Kaplan-Meier (KM) and competing risk analyses were performed to estimate 10-year local recurrence (LR) and breast cancer-specific survival (BCSS) with final margins classified as negative (>2mm, n=9241), close (≤2mm, n=1310), or positive (tumor touching ink, n=312). Competing risk regression multivariable analysis (MVA) and matched-pair analysis were performed.

Results: Median follow-up was 8 years. RT boost was used in 34.1%, 76.9% and 79.5% of patients with negative, close, and positive margins, respectively. Systemic therapy was used in 87.0% of patients. In the negative, close, and positive margin cohorts, 10-year KM LR were 2.8%, 4.3%, and 4.0% and BCSS were 93.7%, 91.5%, and 87.4%, respectively. Pairwise log-rank comparisons between close versus negative margins were p=0.029 for LR and p<0.001 for BCSS. However, on MVA, close margins were not associated with increased LR (HR 1.25, 95% CI 0.79-1.97, p=0.350), nor BCSS (HR 1.25, 95% CI 0.98-1.58, p=0.071), relative to negative margins. Factors associated with both increased LR and reduced BCSS were age <45, grade 3, ≥4 positive nodes, and no systemic therapy. RT boost was not associated with LR (p=0.920) or BCSS (p=0.300). On matched-pair analysis, close margin cases had similar LR (p=0.114) and BCSS (p=0.100), compared to negative margin controls.

Conclusions: This population-based analysis corroborates the SSO/ASTRO consensus that in patients with invasive breast cancer treated with breast-conserving therapy, close margins were not associated with increased LR or reduced BCSS compared to negative margins.

(S002) Population-Based Analysis of the Effect of Margin Status on 10-Year Local Recurrence and Breast Cancer-Specific Survival in Women Treated With Breast-Conserving Therapy
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Purpose: The 2014 SSO/ASTRO consensus advocates “no ink on tumor” as an adequate surgical margin for invasive breast cancer. This study evaluates outcomes relative to margin status in a population-based cohort of women treated with breast-conserving therapy.

Methods: Subjects were 10,863 women referred between 2001-2011, an era in which re-excision was recommended for close/positive margins. All women underwent breast-conserving surgery plus adjuvant whole breast ± boost radiotherapy (RT). Kaplan-Meier (KM) and competing risk analyses were performed to estimate 10-year local recurrence (LR) and breast cancer-specific survival (BCSS) with final margins classified as negative (>2mm, n=9241), close (≤2mm, n=1310), or positive (tumor touching ink, n=312). Competing risk regression multivariable analysis (MVA) and matched-pair analysis were performed.

Results: Median follow-up was 8 years. RT boost was used in 34.1%, 76.9% and 79.5% of patients with negative, close, and positive margins, respectively. Systemic therapy was used in 87.0% of patients. In the negative, close, and positive margin cohorts, 10-year KM LR were 2.8%, 4.3%, and 4.0% and BCSS were 93.7%, 91.5%, and 87.4%, respectively. Pairwise log-rank comparisons between close versus negative margins were p=0.029 for LR and p<0.001 for BCSS. However, on MVA, close margins were not associated with increased LR (HR 1.25, 95% CI 0.79-1.97, p=0.350), nor BCSS (HR 1.25, 95% CI 0.98-1.58, p=0.071), relative to negative margins. Factors associated with both increased LR and reduced BCSS were age <45, grade 3, ≥4 positive nodes, and no systemic therapy. RT boost was not associated with LR (p=0.920) or BCSS (p=0.300). On matched-pair analysis, close margin cases had similar LR (p=0.114) and BCSS (p=0.100), compared to negative margin controls.

Conclusions: This population-based analysis corroborates the SSO/ASTRO consensus that in patients with invasive breast cancer treated with breast-conserving therapy, close margins were not associated with increased LR or reduced BCSS compared to negative margins.

(S003) Curative-Intent Treatment for Newly Diagnosed Breast Cancer With Limited Metastatic Disease to the Sternum or Mediastinum
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Introduction: The sternal and mediastinal nodes are in close proximity to the breast and internal mammary nodes, but current breast cancer staging nomenclature considers these regions as distant metastatic sites not amenable to curative therapy. We hypothesized that some patients presenting with sternal or mediastinal disease may be cured with trimodality therapy, including chemotherapy, breast/axillary surgery and radiation. To test this hypothesis, we retrospectively evaluated oncologic outcomes for breast cancer patients with oligometastatic disease involving the sternum or mediastinum, treated with curative-intent at our institution.

Methods: We used electronic medical record natural language processing to identify 451 breast cancer patients with mediastinal and/or sternal involvement, diagnosed from 2005 to 2014. Manual review of these charts identified 33 patients meeting the following criteria: age ≥18, de novo presentation of any T, any N, M1 disease with metastases limited to the mediastinum and/or sternum; treated with curative intent; and minimum 2 years of potential follow up. Local-regional control (including the sternum/mediastinum), disease-free survival, and overall survival were determined.