***Coverage of All Abstracts Embargoed Until Thursday, April 11, 11:30 AM EDT**

Media Tip Sheet

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Additional Notable Research Presented at the 25th Annual Meeting of the American Society of Breast Surgeons

The following newsworthy abstracts presented at the 25th Annual Meeting of the American Society of Breast Surgeons (ASBrS) may be of particular interest, in addition to presentations during the Media Press Briefing. Researchers are available for telephone interviews. Onsite media is invited to attend all scientific sessions.

Abstracts

Does the Type of Endocrine Therapy Differentially Affect Quality of Life in Older (≥ 70 years) Women with Early-stage Breast Cancer?
Lead Author: Keva Li, MD
Icahn School of Medicine at Mount Sinai
New York, NY

Internal Mammary Lymphadenopathy Does Not Impact Oncologic Outcomes in Patients Treated with Neoadjuvant Chemotherapy: Results from the I-SPY2 Clinical Trial
Lead Author: Mara Piltin, MD
Mayo Clinic
Rochester, MN

The Utility of Routine Clinical Breast Examination for High-risk Patients in the Modern Era
Lead Authors: Tien Hua, MD and Jessica Thompson, MD
Michigan State University College of Human Medicine
Grand Blanc and Grand Rapids, MI

ATTRIBUTION TO THE 25th ANNUAL MEETING OF THE AMERICAN SOCIETY OF BREAST SURGEONS IS REQUESTED IN ALL COVERAGE.

Abstract, Official Proceedings

Does the Type of Endocrine Therapy Differentially Affect Quality of Life in Older (≥ 70 years) Women with Early-stage Breast Cancer?

Authors: Keva Li, Manjeet Chadha, Erin Moshier, Weijia Fu, Barry Rosenstein

Institution: *Icahn School of Medicine at Mount Sinai, New York, NY*

Objective: There is limited data on health-related quality of life (HRQoL) in older breast cancer (BC) patients. This study aims to examine patient reported outcomes (PROs) by type of endocrine therapy (ET) prescribed, aromatase inhibitors (AI) or tamoxifen (Tam) to estrogen receptor positive BC patients ≥70 years with treated with breast conservation surgery (BCS) + radiation therapy (RT) + ET.

Methods: This is a retrospective review of a multi-center prospective REQUITE study across Europe and North America. Among the 2,057 women recruited, we identified 201 women ≥70 years and treated with BCS+RT+ET as the only prescribed systemic therapy. The PRO data using the EORTC-QLQ-C30, and BR23 questionnaire was obtained at baseline after BCS, post-RT, and at follow up 1, 2, and 3 years. The statistical methods for the study used a mixed model analysis of variance and weighted by the propensity scoring.

Results: The overall mean age is 75.3 years, in which 65% received AI and 35% received Tam. The Tam group had significantly more favorable pathological features compared to the AI group: smaller T-size (T1: 64% vs 77%; p=0.0057) and lower grade (Grade l: 26% vs 16%; p=0.0065) tumors. Both AI and Tam groups experienced borderline significant decline in global health QoL from baseline and at 24 months and this persisted for the Tam group only at 36 months. Both the Tam and AI groups showed comparable decrease in physical functioning at 24 months, but with a greater decline observed in the Tam group at 36 months (-8.18, 95% CI: [-16.95, 0.59]; p=0.067). There was a negative impact on cognition in both ET groups. However, examining the differences in mean change from baseline between the groups, we observed Tam had a more negative effect on cognitive functioning than the AI group immediately after RT (-6.43, 95% CI: [-12.64, -0.22]; p=0.0425) and at 36 months (-12.05, 95% CI: [-23.59, -0.5]; p=0.0408). The worsening symptoms of insomnia from baseline observed in both groups was less likely to improve in the AI group compared to the Tam group at 12, 24, and 36 months (p=0.0086, 0.0719, and 0.0436, respectively). In addition, in both groups we observed a statistically significant increase in systemic side effects from baseline, at post-RT, 12 months, and 24 months. However, at 36 months the AI group continued to report significantly increased side effects (5.43, 95% CI: [1.57, 9.29]; p=0.0060). A statistically significant difference in mean change from baseline between groups was noted with more arm symptoms in the AI group at 36 months (11, 95% CI: [0.97, 21.03]; p=0.0316) compared to Tam group. No difference in pain symptoms or fatigue were observed between the two groups.

Conclusions: This study illustrates a differential impact on HRQoL by type of ET prescribed in older BC patients. Tam had a more significant negative effect on global health, physical functioning, and cognitive functioning. While AI was associated with more systemic side effects and worse insomnia symptoms. Further research is needed to optimize selection of risk-tailored ET options for treating older women.

Abstract, Official Proceedings

Internal Mammary Lymphadenopathy Does Not Impact Oncologic Outcomes in Patients Treated with Neoadjuvant Chemotherapy: Results from the I-SPY2 Clinical Trial

Authors: Mara Piltin[1], Peter Norwood[2], Rita Mukhtar[3], Velle Ladores[4], Candice Sauder[5], Gretchen Ahrendt[6], Mehra Golshan[7], Cletus Arciero[8], Jennifer Tseng[9], Marie Lee[10], Rachael Lancaster[11], Laura Esserman[3], ISPY2 Locoregional Working Group[3], Judy Boughey[1]

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Background/Objective: Internal mammary lymphadenopathy (IML) in patients with breast cancer is diagnosed by radiographic assessment, usually without percutaneous biopsy. IML plays an important role in disease stage and prognosis assessment. We aimed to evaluate method of IML detection, how IML impacts response to modern neoadjuvant chemotherapy (NAC), and oncologic outcomes.

Methods: We evaluated patients enrolled in the prospective randomized ISPY-2 clinical trial from 2010-2022 for IML. We captured method of IML detection (breast MRI, PET-CT or both) and compared the cohort with IML to those without. Rates of locoregional recurrence (LRR), distant recurrence (DR) and event free survival (EFS) were compared by bivariate analysis.

Results: Of 2,095 patients, 198 (9.5%) had IML reported on pre-treatment imaging. All patients had MRI per study protocol (of which 8.9% had IML), and 505 patients (24.1%) had PET-CT (of which 8.7% had IML). Method of IML detection was 154 (77.8%) by MRI only, 11 (5.6%) by PET-CT only and 33 (16.7%) by both MRI and PET-CT. Of the patients who had IML by MRI with measurements reported (n=35/187), the mean largest node measured 7.52 mm (SD 3.18) overall. Of those with IML by PET with recorded SUVmax (n=38/44), the mean SUVmax was 4.39 (SD 3.8). Factors associated with IML were younger age (p=0.001), larger tumors (p< 0.001), and higher tumor grade (p=0.027). Biologic subtype was not associated with IML (p=0.95). Pathologic complete response (pCR) was slightly higher in the IML group (41.4% vs 34.0%, p=0.05). Comparing patients with IML and without IML, there was no difference in type of breast or axillary surgery performed (p=0.41, p=0.16) however patients with IML were more likely to undergo radiation therapy (68.2% vs 54.1%, p< 0.001). With a median follow up time of 3.7 years (range 0.4-10.2), there was no significant difference between patients with IML versus without in terms of LRR (5.6% vs 3.8%, p=0.25), DR (9.1% vs 7.9%, p=0.58) or EFS (61.6% vs 57.2%, p=0.48). This was true for both patients with pCR and with residual disease. Of the patients who had a pCR (n=727), presence of IML did not significantly impact LRR (2.4% vs 0.6%, p=0.14), DR (4.9% vs 2.6%, p=0.282) or EFS (70.7% vs 68.4%, p=0.1). While patients without a pCR (n=1,279) had worse oncologic outcomes overall, the presence of IML did not significantly impact LRR (8.5% vs 5.9%, p=0.29), DR (13.2% vs 11.3%, p=0.527) or EFS (60.4% vs 54.8%, p=0.68) within this group.

Conclusions: In this large cohort of patients treated with neoadjuvant chemotherapy, oncologic outcomes were not negatively impacted by the presence of IML. This was observed across patients who achieve a pCR in the breast and axilla as well as those who do not. There was no difference in the type of breast or axillary surgery performed and those with IML had higher rates of radiation therapy. We

demonstrated that IML may influence treatment selection but is not a poor prognostic indicator when treated with modern neoadjuvant chemotherapy and multidisciplinary disease management.

Abstract, Official Proceedings

The Utility of Routine Clinical Breast Examination for High-risk Patients in the Modern Era

Authors: Tien Hua[1], Morgan McCririe-Balcom[2], Sergio Mendoza[3], Jesse Kelley[4], G. Paul Wright[4], Jessica Thompson[4]

Institutions: *[1]Michigan State University College of Human Medicine, Grand Blanc, MI, [2]Michigan State University College of Human Medicine, Traverse City, MI, [3]Michigan State University College of Human Medicine, Grand Rapids, MI, [4]Michigan State University College of Human Medicine, Corewell Health West, Grand Rapids, MI*

Background/Objective: For women at increased risk of breast cancer development, NCCN guidelines recommend clinical encounters every 6 to 12 months in order "to maximize earliest detection of breast cancers and assure ongoing risk assessment". In the interest of patient and provider safety during the COVID-19 pandemic, many healthcare systems implemented telemedicine as an alternative option to in-person examinations. While there are many advantages associated with virtual visits, the appropriateness and impact of omitting routine clinic breast exams (CBE) for high-risk patients has been questioned. A recent systematic review reported that the sensitivity of CBE (40-69%) is lower than screening mammography (77-95%). Taking into consideration that accessibility to advanced breast imaging continues to readily increase, our study aimed to assess the conventional merit of regular CBE for breast cancer detection among the high-risk breast cancer patient population.

Methods: Following IRB approval, an institutional cancer database was utilized to retrospectively identify biological women >18 years with at least one documented high-risk encounter at Corewell Health West between 1/1/2018 and 12/31/22. High-risk was defined as known genetic predisposition, 5-year risk >1.7% and/or lifetime risk >20% based on Tyrer-Cuzick and/or Gail Model estimations, thoracic radiotherapy receipt before age 30, history of lobular carcinoma in-situ and/or atypical hyperplasia. Patients with a history of breast cancer or bilateral prophylactic mastectomy prior to 2018 were excluded.

Results: Of the 2524 women meeting inclusion criteria, 39 (1.5%) were diagnosed with breast cancer during the study period. Of the 39 individuals with a cancer diagnosis, 1 (2.6%) was detected by CBE, 10 (25.6%) were self-reported, and 28 (71.8%) were image-detected. The cohort of women with cancer had a combined total of 124 high-risk encounters during the study period with an average of 4.3 visits per individual. Twenty-seven of the 28 women (96.4%) with image-detected cancer had no detectable clinical findings at the time of their preoperative consultation. The individual with CBE-detected cancer was a BRCA1 carrier, and of the self-reported breast cancers, 6 (60%) had a pathogenic mutation (5 BRCA1/2, 1 PALB2). Conversely, 16 (57.1%) women with screen-detected cancers had negative genetics. All 11 self-reported and CBE-detected cases were invasive carcinoma (10 ductal, 1 mixed). Of the 28 image-detected cases, 20 were invasive carcinoma and 8 were ductal carcinoma in-situ. Self-reported and CBE-detected cancers were more likely to be of higher clinical stage (four stage I, six stage II, one stage III) compared to image-detected malignancies (ten stage 0, fourteen stage I, four upstaged from excisional breast biopsy).

Conclusions: In a cohort of 2524 high-risk women, CBE resulted in 1 (0.03%) cancer diagnosis compared to 28 (1.1%) detected with screening imaging and 10 (0.4%) self-reported. The role of routine CBE as a cancer detection modality in the high-risk patient population appears to be limited. While in-person accessibility to specialized care remains inequitable, virtual visit offerings may be an acceptable

alternative for individuals who have completed screening imaging but are otherwise unable to commit to or are inconvenienced by in-person high-risk breast cancer assessments.