Table of Contents

Clinical Breast Cancer

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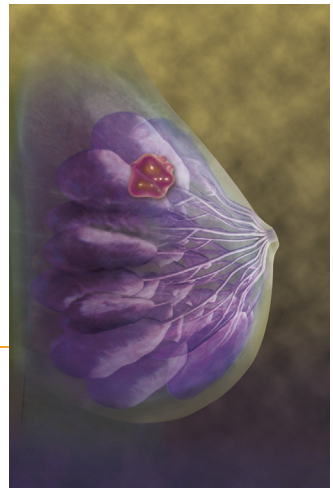

Illustration by Erin Moore

Perspective

Reviews

Original Studies

344 Localized Therapy for Male Breast Cancer: Functional Advantages With Comparable Outcomes Using Breast Conservation

Shannon Fogh, Lisa A. Kachnic, Saveli I. Goldberg, Alphonse G. Taghian, Simon N. Powell, Ariel E. Hirsch

A retrospective analysis was undertaken of male patients with breast cancer. Musculoskeletal functionality and cosmesis (tissue fibrosis, arm edema and range of motion) and treatment outcome (local-regional control, disease-free and overall survival) were evaluated. Actuarial overall 1-year 'fair-poor' documented tissue fibrosis, arm edema and decreased range of motion rates were 13%, 23% and 27% for patients receiving MRM, 25%, 0% and 50% for patients who underwent TSM, and 13%, 0% and 0% for those undergoing BCS. Breast conservation therapy may be considered a reasonable local treatment option for male patients presenting with breast cancer as it may offer cosmetic and functional and cosmetic advantages over mastectomy, with comparable rates of local control, and disease-free and overall survival.

350 Utility of Intraoperative Frozen Section Examination of Sentinel Lymph Nodes in Ductal Carcinoma In Situ of the Breast

Umashankar K. Ballehaninna, Ronald S. Chamberlain

SLN metastases in DCIS are uncommon and are identified usually at the time of routine pathologic assessment. This study evaluates the utility of frozen section examination of SLN in DCIS patients and the results demonstrate that frozen section evaluation is limited by poor sensitivity, high false negative rates and increased costs, therefore it can be safely omitted in DCIS patients.

359 Can Fluorine-18 Fluoroestradiol Positron Emission Tomography—Computed Tomography Demonstrate the Heterogeneity of Breast Cancer In Vivo?

Zhongyi Yang, Yifei Sun, Yongping Zhang, Jing Xue, Mingwei Wang, Wei Shi, Beiling Zhu, Silong Hu, Zhifeng Yao, Herong Pan, Yingjian Zhang

Clarifying the estrogen receptor extent is important for treatment. We investigated the heterogeneity of estrogen receptor expression in 32 breast cancer patients by using fluorine-18 fluoroestradiol positron emission tomography—computed tomography, which demonstrated a conspicuous number of patients with the heterogeneity.

364 Does the Result of Completion Axillary Lymph Node Dissection Influence the Recommendation for Adjuvant Treatment in Sentinel Lymph Node—Positive Patients?

Ákos Sávolt, Csaba Polgár, Patrick Musonda, Zoltán Mátrai, Ferenc Rényi-Vámos, László Tóth, Miklós Kásler, Gábor Péley

The aim of this study was to investigate whether the result of completion ALND influenced the recommendation for adjuvant systemic treatment in patients with SLN+ breast cancer. A total of 474 SLN+ patients were randomized to completion ALND (n = 244) or RNI (n = 230). There was no major difference between the 2 arms in the rate of administration of adjuvant systemic therapy.

371 Breast Cancer Expression of DAP12 is Associated With Skeletal and Liver Metastases and Poor Survival

Ivan Shabo, Hans Olsson, Olle Stål, Joar Svanvik

Macrophages are an important cellular factor in breast cancer (BRC) progression and metastasis. DNAX activating protein of 12 kD (DAP12) is essential factor for macrophage fusion function. This study was conducted to investigate the expression and significance of DAP12 expression in BRC. DAP12 is expressed in BRC cells and associated with poor survival, liver metastases, and bone metastases. These data provide new insight into the pathophysiology of macrophages in BRC.

378 Mesothelin Expression and Survival Outcomes in Triple Receptor Negative Breast Cancer

Napa Parinyanitikul, George R. Blumenschein, Yun Wu, Xiudong Lei, Mariana Chavez-MacGregor, Melody Smart, Ana Maria Gonzalez-Angulo

Mesothelin is an ideal tumor-associated marker for the development of targeted therapy due to its limited expression in normal tissues. Mesothelin expression was identified in 34% of patients with triple-negative breast cancer. Mesothelin expression did not correlate with survival outcomes in patients with triple-negative breast cancer.

385 Grade of Ductal Carcinoma In Situ Accompanying Infiltrating Ductal Carcinoma As an Independent Prognostic Factor

Ju-Yeon Kim, Wonshik Han, Hyeong-Gon Moon, In-Ae Park, Soo Kyung Ahn, Jisun Kim, Jun Woo Lee, Taeryung Kim, Min Kyoon Kim, Dong-Young Noh

This study was aimed to assess the characteristics and prognosis of patients with infiltrating ductal carcinoma (IDC) according to the presence and grade of accompanying ductal carcinoma in situ (DCIS). Clinicopathologic backgrounds and prognoses of 1751 IDC patients were investigated. Statistical analysis showed that patients with IDC and accompanying high-grade DCIS had a poorer prognosis regardless of grade of IDC.

392 Ultrasound Elastography of Breast Lesions in Chinese Women: A Multicenter Study in China

Hui Zhi, Bing Ou, Xiao-yun Xiao, Yu-lan Peng, Yi Wang, Li-sha Liu, Ying Xiao, Shou-jun Liu, Chang-jun Wu, Yu-xin Jiang, Shyam Sundar Parajuly, Ping Xu, Yi Hao, Jing Li, Bao-Ming Luo

The different breast characteristics of Chinese women from those of Western women may influence the results of ultrasound elastography. This study was a retrospective multicenter trial that involved 8 centers throughout China. A total of 1150 breast lesion elastograms were analyzed. A suitable diagnostic standard of ultrasound elastography for Chinese women was proposed. It will be helpful in Chinese women for breast lesion diagnosis.

401 Retinoic Acid Receptor Alpha Amplifications and Retinoic Acid Sensitivity in Breast Cancers

Samar Alsafadi, Caroline Even, Coralie Falet, Aicha Goubar, Frédéric Commo, Véronique Scott, Virginie Quidville, Laurence Albiges, Maria-Vittoria Dieci, Justine Guegan, Vladimir Lazar, Jean-Charles Ahomadegbe, Suzette Delaloge, Fabrice André

Starting from a clinical observation, a small subset of breast cancer patients presenting retinoic acid receptor alpha (RARA) amplification and overexpression was identified. Retinoic acid reduced cell viability of *RARA*-amplified cell lines through interferon regulatory factor (IRF)-1 and caspase (CASP)-1 activation and *RARA*-nonamplified cells were most likely resistant to all-*trans*-retinoic acid (ATRA). This study suggests that *RARA*-amplified breast cancers could be sensitive to retinoic acid.