Dissecting the Decision

Investigators Discuss Available Research Data and Clinical Factors That Shape the Management of HER2-Positive Breast Cancer

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, hematology-oncology fellows and other allied healthcare professionals involved in the treatment of breast cancer.

OVERVIEW OF ACTIVITY

Breast cancer remains the most frequently diagnosed cancer in women, and in 2014 in the United States alone it is estimated the disease will culminate in 232,670 new cases and 40,000 deaths. Patients with HER2-positive disease account for 15% to 20% of all breast cancer cases, or approximately 35,000 to 46,000 new patients per year. In 1987 amplification of the HER2 oncogene was determined to result in reduced survival in breast cancer, which triggered the development of trastuzumab as the first targeted therapy based on a molecular cancer abnormality. Over the ensuing quarter century significant advances have been made in the understanding of the biology and the clinical management of HER2-positive breast cancer.

However, considerable gaps remain in optimizing treatment of this disease subtype, particularly with the growing armamentarium of effective HER2-targeted agents. In the treatment of early-stage HER2-positive breast cancer several issues remain incompletely elucidated, including who should receive neoadjuvant versus adjuvant therapy, the use of single versus dual anti-HER2 blockade, the use of anthracycline- versus nonanthracyline-containing chemotherapy and the approach to therapy for patients with small, node-negative disease. In the advanced disease setting several clinical questions remain open, including the optimal sequencing of treatments in the first, second and later lines of treatment, the timing and duration of treatment, how previous adjuvant HER2-targeted therapy influences treatment decision-making, how hormone receptor status can affect therapeutic options and how best to manage brain metastases, which occur in approximately 50% of patients with metastatic HER2-positive disease. In addition to the preceding issues, HER2 test results are discordant between primary and metastatic disease for 5% to 10% of patients, necessitating management approaches that may have a significant impact on treatment.

By providing access to the latest research developments and expert perspectives on the treatment of HER2-positive breast cancer in the neoadjuvant, adjuvant and metastatic settings, these proceedings from a case-based CME symposium held at the 2014 ASCO Annual Meeting aim to assist medical oncologists, breast surgeons and other healthcare providers as they attempt to formulate optimal disease management strategies in the face of a constantly evolving body of knowledge.

LEARNING OBJECTIVES

- Compare and contrast expert perspectives on HER2-positive breast cancer treatment recommendations, and use this information to refine or validate existing management strategies.
- Individualize the selection of evidence-based neoadjuvant and adjuvant systemic regimens for patients with HER2-overexpressing early breast cancer.
- Implement a clinical plan for the management of advanced HER2-positive breast cancer, incorporating existing and emerging targeted treatments.
- Develop an evidence-based algorithm for the treatment of advanced hormone receptor-positive, HER2-positive premenopausal and postmenopausal breast cancer, including the use of endocrine, biologic and chemotherapeutic agents.
- Communicate the availability of ongoing clinical trials evaluating novel anti-HER2 strategies, and counsel appropriately selected patients about study participation.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 7 or later, Firefox 3.0 or later, Chrome, Safari 3.0 or later
Adobe Flash Player 10.2 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

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Select Publications

Harold J Burstein, MD, PhD

Cancer Research UK. **A trial of TDM1 after surgery for breast cancer (KATHERINE).** Available at: **http://www.cancerresearchuk.org/cancer-help/trials/a-trial-tdm1-after-surgery-breast-cancer-katherine**. Accessed July 28, 2014.

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Edith A Perez, MD

A study of pertuzumab in addition to chemotherapy and Herceptin (trastuzumab) as adjuvant therapy in patients with HER2-positive primary breast cancer. NCT01358877

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Kimberly L Blackwell, MD

Baselga J et al. **Pertuzumab plus trastuzumab plus docetaxel for metastatic breast cancer.** *N Engl J Med* 2012;366(2):109-19.

Giordano SH et al. **Systemic therapy for patients with advanced human epidermal growth factor receptor 2-positive breast cancer: American Society of Clinical Oncology clinical practice guideline.** *J Clin Oncol* 2014;32(19):2078-99.

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Johnston SR. **Combinations of endocrine and biological agents: Present status of therapeutic and presurgical investigations.** *Clin Cancer Res* 2005;11(2 Pt 2):889s-99s.

Kaufman B et al. **Trastuzumab plus anastrozole versus anastrozole alone for the treatment of postmenopausal women with human epidermal growth factor receptor 2-positive, hormone receptor-positive metastatic breast cancer: Results from the randomized Phase III TAnDEM study.** *J Clin Oncol* 2009;27(33):5529-37.

Swain SM et al. **Pertuzumab, trastuzumab, and docetaxel for HER2-positive metastatic breast cancer (CLEOPATRA study): Overall survival results from a randomised, double-blind, placebo-controlled, phase 3 study.** *Lancet Oncol* 2013;14(6):461-71.

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Houssami N. **HER2 discordance between primary breast cancer and its paired metastasis: Tumor biology or test artefact? Insights through meta-analysis.** *Breast Cancer Res Treat* 2011;129(3):659-74.

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Taube SE. **Biomarkers in oncology: Trials and tribulations.** *Ann N Y Acad Sci* 2009;1180:111-8.

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