advances in anti-erbB2 treatment requires a better understanding of Asian breast cancer biology, especially, erbB2 status.
Methods: A literature search was conducted in seven Asian countries on breast cancer studies where tumour erbB2 overexpression was assessed. The keywords *erbB2* OR *HER2* OR *ErbB-2* OR *HER-2* AND *breast cancer* AND (*country*) were used to search PubMed, international and local conference abstracts and local-language journals from the year 2000 onwards. Where available, we selected up to five representative studies from each country on the basis of population size, multi-institution patient populations, institution reputation and journal impact factor. The selection of articles was finalized with expert opinion from local breast cancer specialists to ensure objectivity in representation.
Results: The mean or median age ranged from 46−56 years. The limited availability of erbB2 testing in some Asian countries with socio-economic constraints results in limitation of data. Definitions of erbB2 positivity using *immunohistochemistry* (IHC) vary between institutions and *fluorescent in situ hybridization* (FISH) is not routinely performed in several Asian countries. The larger studies in particular confirm that the proportion of erbB2-positive breast cancer in Asia is generally similar to the 20−30% reported for Western women. In most studies that evaluated tumour erbB2 and hormone status, erbB2 over-expression correlated negatively with estrogen receptor (ER) positivity.

erbB2 status in Asian breast cancer studies in 2000 onwards

Country (number of studies reviewed)	Total population (study population range)	Percentage range of erbB2-positive samples	Definition of erbB2 positivity
Korea (5)	14,926 (188−9,668)	24.5−36.9	IHC 2+ plus 3+; or FISH
Taiwan (5)	1,485 (63−1,028)	19.0−38.5	IHC 2+ and/or 3+; FISH
Singapore (5)	802 (97–321)	16.55−34.3	IHC 2+ and/or 3+; FISH
Thailand (4)	5,812 (318−4,546)	17.87−32.0	Positive by IHC
Philippines (1)	2,333	20.0	IHC 3+
Malaysia (2)	699 (306; 393)	34.5; 44.4	IHC 3+; not stated
India (4)	892 (204–271)	25.19−42.0	Positive by IHC

Conclusions: The increased availability of accurate erbB2 testing and data would aid improved treatment of erbB2-positive breast cancer in these countries.

5144 POSTER

Prophylactic antibiotics are necessary to minimise the risk of febrile neutropenia in patients receiving TAC chemotherapy

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Following the publication of the BCIRG001 trial, TAC chemotherapy represents a new treatment standard for early node-positive breast cancer. In randomised trials, myelosuppression is common with this regimen and the rate of febrile neutropenia (FN) has been documented at 6.5−24.7%. Primary prophylaxis with granulocyte colony-stimulating factor (G-CSF) plus or minus antibiotics is required. Our previous studies have shown that myelosuppression is much more common in patients treated outside clinical trials in a community hospital setting [1].
Between January 2007 and April 2009, 169 patients at our centre received TAC chemotherapy (docetaxel 75 mg/m^2, doxorubicin 50 mg/m^2 and cyclophosphamide 500 mg/m^2, all on day 1, every 3 weeks). The median age was 48 (range 27−66). All patients received primary prophylaxis with subcutaneous pegfilgrastim 6 mg on day 2 of each cycle. For the first 81 patients treated, prophylactic antibiotics were omitted due to local concerns regarding Clostridium difficile infection. The high frequency of FN in this group led us to add levofloxacin prophylaxis in all patients.
29/81 (36%) patients treated with pegfilgrastim alone developed FN and there was one septic death. The rate of FN was significantly lower at 20/88 (23%) in those treated with G-CSF and levofloxacin ($p = 0.044$). The median duration of inpatient stay was 3.5 days (range 1−14 days). In 26 patients (53%), FN occurred during the first cycle. The median time to onset of FN was 7 days (range 2−14) post chemotherapy.
Prophylactic antibiotics significantly reduce the rate of FN and are an important component of the supportive care for patients receiving TAC chemotherapy. Even with antibiotics and G-CSF, the frequency of FN in patients treated outside clinical trials is high, particularly after the first cycle of treatment. Better predictive factors are required to identify patients who are at risk of this complication.

References

[1] Jenkins P et al. Obesity is not associated with increased myelosuppression in patients receiving chemotherapy for breast cancer. Eur J Cancer 2007; 43: 544−8.

5145 POSTER

Success-C-study: simultaneous study of docetaxel based anthracycline free adjuvant treatment evaluation as well as life style intervention strategies

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Background:
- Taxane based chemotherapy, like the PACS 01 regimen (3×FEC followed by 3×Docetaxel) has been established as standard treatment option for early breast cancer
- Anthracycline-based regimens do not seem to be superior in HER2-negative patients (Gennari et al., Slamon et al.)
- Lifestyle-Intervention, including physical activity and a fat-reduced diet, seems to improve the outcome in patients with early breast cancer
- The prognostic relevance of isolated tumor cells in bone marrow has recently been proven (Braun et al., Janni et al.) and early data indicates a prognostic relevance of circulating tumor cells in peripherial blood (Rack et al., ASCO 2008).

Methods: The SUCCESS-C Trial is a prospectively randomized multicenter clinical trial for early, HER2/neu-negative breast cancer patients. The study comprises two sequential randomizations.
Inclusion criteria (in extracts):
- primary epithelial invasive carcinoma of the breast pT1−4, pN0−3, pM0
- no evidence of HER2/neu overexpressing
- histopathological proof of axillary lymph node metastases or high risk node negative disease

Exclusion criteria (in extracts):
- inflammatory breast cancer
- cardiomyopathie which impaired ventricular function and other cardiological problems.

The first randomization of the study will compare the disease-free survival in patients treated with 3 cycles of Epirubicin (100 mg/m^2), Fluoruracil (500 mg/m^2) and Cyclophosphamid (500 mg/m^2), followed by 3 cycles of Docetaxel (100 mg/m^2) versus 6 cycles of Cyclophosphamid (600 mg/m^2) and Docetaxel (75 mg/m^2).
The second randomization examines the benefits of standardized lifestyle dietary intervention and weight reduction, conducted by intensive telephone coaching. The telephone intervention will involve 20 phone calls, as well as mailings and a participant manual.
Adjunct to these interventional strategies is a translational research program, which will focus on the role of CTCs as valuable marker of treatment failure and early disease progression. At three predefined time points during treatment peripheral blood will be drawn.
Results: Results of the toxicity analysis and the translational research program will be available at the end of treatment. First conclusions about the effects on DFS are expected two years after the end of chemotherapeutic treatment or lifestyle intervention respectively.

5146 POSTER

Does adjuvant bisphosphonate in early breast cancer modify the natural course of the disease – a meta-analysis of randomized controlled trials

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Background: Preclinical studies demonstrated that bisphosphonates may have antitumour activity in addition to their ability to reduce osteoclast-mediated bone resorption.
Aim: To address whether use of bisphosphonates in breast cancer adjuvant setting might have any effect on overall survival, prevention of disease recurrences and bone metastases occurrence.
Study design: Systematic review and meta-analysis of randomized controlled trials **Methods:** Trials were located through PubMed, ISI, Cochrane Library, and major cancer scientific meetings searches.
Result: Data eligible for our analyses could be retrieved for 13 studies evaluating the adjuvant use of bisphosphonates compared with no use. Pooled results showed no statistical significant differences with the use