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POSTER

The effects of prognostic factors on the first recurrence patterns of breast cancer

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Background: The aim of the study was to determine the effect of clinical and pathological prognostic factors on recurrence patterns and survival rates of patients with breast cancer whom were followed up at the Medical Oncology department of Cerrahpasa medical Faculty of Istanbul University during years between 1980 and 2002.

Materials and Methods: The files of 1624 patients with breast cancer were retrospectively analysed. Mean age, menopausal status and clinical stage of patients, pathological subtypes, axillary lymph node involvement, tumor grade, hormonal receptor status, perineural and lymphatic invasion, perinodal invasion and c-erbB2 expression patterns were determined. First recurrence patterns, site of systemic recurrences, recurrence free and overall survival times of patients were analysed.

Results: The 5 year survival rates were found to be 94.6% and 26.2% in patients with stage I and IV disease respectively. The higher TNM stage of the disease, age under 35 ($p=0.0001$), estrogen ($p=0.014$) and progesterone receptor negativity ($p=0.003$), axillary lymph node involvement ($p=0.0001$), perinodal invasion ($p=0.0001$), lymphatic ($p=0.005$), perineural ($p=0.0229$) and c-erbB2 ($p=0.0056$) positivity were found to be the prognostic factors affecting adversely the disease free survival in univariate analysis. Axillary lymph node involvement ($p=0.0023$) and progesterone receptor negativity ($p=0.022$) were found to be associated with systemic metastases rather than local recurrence as the first recurrence pattern. Progesterone receptor positivity predicts systemic metastases to bone and soft tissue rather than visceral organ involvement and patients who have cranial and leptomeningeal involvement during the first recurrence have a tendency to have progesterone receptor negative tumors ($p=0.028$). In multivariate analysis, c-erbB2 positivity ($p=0.0001$), axillary lymph node involvement ($p=0.006$), age under 35 ($p=0.008$), progesterone receptor negativity ($p=0.082$), perinodal invasion ($p=0.025$) were found to be the independent adverse prognostic factors.

Conclusions: The progesterone receptor status has a greater effect than estrogen receptor on the first recurrence patterns and systemic metastases sites of patients with breast cancer.

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Update of survival and prognostic factors of triple-negative breast cancer in Thailand

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Background: To study survival and prognostic factor of triple negative breast cancer (TNBC) which has never been reported in Thailand.

Methods: We retrospectively reviewed 116 patients who were classified as having TNBC. The all of them came from 4 public hospitals and 3 private hospitals in Bangkok between January 2000 and March 2009. The patient characteristics, tumor characteristics, and treatment outcomes had been collected, then mapping with demographic data, staging, and treatment outcome.

Results: The median follow up time was 47.5 months (range, 24–72 months). 116 patients were classified as having triple-negative breast cancer. Among these, 66 patients (56.9%) had premenopausal status and 50 patients (43.1%) had postmenopausal status. 88 patients were classified as having early breast cancers (13 in stage I/11.2%, 46 in stage IIA/39.66%, and 28 in stage IIB/24.14%) and 28 patients were classified as having locally advanced breast cancers. The majority of cases ($n=105$) were invasive ductal carcinoma. None of them were graded as well differentiated. Eleven of them had vascular involvement. Treatment regimens were as follows: 99 patients underwent surgery followed by adjuvant chemotherapy, 17 patients received neo-adjuvant therapy, and 51 patients received postoperative radiation. During a median follow-up time of 4 years, 8 patients experienced relapse, of which 2 were local relapses and 6 were distant relapses (brain and lung metastasis). At the end of the study, 106 of 116 are not metastasis till the censored date (31 March 2009). The 5 years disease free overall survival (DFS) is 76.68% (95%CI: 57.17 to 88.16). Hazard ratio for locally advanced to early breast is 2.45 (95%CI: 0.58 to 10.38). The 5-year survival rate was 63.77% (95%CI: 20.07 to 88.16) for locally advanced and 80.77% (95%CI: 58.40 to 91.87) for early breast cancer. The patients with vascular/perineural involvement

had increased risk of relapse ($p=0.005$). Cell type grading between locally advanced and early cancer was significantly different ($P<0.005$).

Conclusion: Triple-negative breast cancer is an aggressive disease with relatively poor survival. We found that one who had vascular and perineural involvement associated with short term survival and cell type grading has significant correlation with staging of disease. Unfortunately, there is no significance of outcome among both stages in this study. Therefore, we would like to concluded that vascular and perineural involvement might be poor prognostic factor in this our data.

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Predictive factors of response to neoadjuvant 3-weekly epirubicin (EPI) plus docetaxel (DOC) chemotherapy (CT) in locally advanced breast cancer (LABC): a prospective phase II trial

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Background: A prospective phase II trial was designed to verify the activity and safety of 3-weekly EPI/DOC primary CT in LABC and to identify predictor factors of response. The primary end point was the complete pathological response (pCR), defined as no invasive breast carcinoma in breast an axillary nodes after primary CT.

Patients and Methods: Consecutive patients (pts) referring at our Centre with newly diagnosed, histologically proven LABC were enrolled. Primary CT consisted of EPI 75 mg/m² plus 75 mg/m² given as i.v. infusion on day 1 of 3-week cycles.

Results: Fifty-two pts were treated: median age 46 years (range 29–59); median tumor size was 4.5 cm (range 3–9) by clinical examination and 4.2 cm by ultrasonography (range 2.5–8); 47 pts had invasive ductal, 5 invasive lobular carcinoma; ER– status in 14 pts; PgR– in 22 pts; triple negative: 7 pts; HER2/neu overexpression (IHC 3+ or FISH+) in 13 pts. A minimum of 3 cycles of CT was administered (median 4, range 3–6). Treatment compliance was good and no dose reduction was required; 12 cycles were delayed by one week because of hematological toxicity (WHO grade 3/4 neutropenia in 14% of cases, 2 case of febrile neutropenia) and G-CSF support was given in 3 pts. Grade 1 cardiotoxicity occurred in 2 pts at the 4th cycle and in 3 additional pts at the completion of adjuvant CT; other non haematological toxicities were within grade 1–2. All 52 pts underwent surgery without delay; breast conserving surgery was performed in 24/29 candidate pts; 5 pts preferred total mastectomy. The clinical overall response rate (ORR) was 86% (95% CI: 77–94), with 21 (40%) complete responses (CR); the sonographical OOR was 96% (95% CI: 87–98) with 7 CRs (13%). A pCR (ypT0) with negative axillary lymph nodes was confirmed in 10 pts (19%) and additional 4 pts had *in situ* lesions only in breast tissue (ypDCIS), with an overall pCR rate of 25%. There was no case of progressive disease. Among clinical and tumour characteristics evaluated as potential predictors of pCR, ER status and HER2/neu overexpression resulted significantly correlated with pCR in univariate analysis ($p=0.04$ and 0.02 , respectively); in multivariate analysis triple-negativity and ER-negativity showed an independent relationship with pCR.

Conclusions: Our data show that 3-weekly EPI/DOC primary CT is very active and well tolerated in patients with LABC, also producing an interesting high percentage of pCR in triple negative tumours.

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Columnar cell lesions are the early precursors of some forms of invasive breast carcinoma – a new genetic map for the evolutionary pathway of low nuclear grade breast neoplasia (LNGBN) family

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Background: There is evidence to suggest that a number of low nuclear grade invasive breast cancers (LNGBC) and putative precursor lesions may consist in a family of interrelated lesions. The aim of this study is to identify the molecular genotypic profile of lesions belonging to LNGBN.

Material and Methods: 15 LNGBCs and matched coexisting columnar cell lesions (CLLs, ductal carcinoma *in situ* (DCIS) and lobular neoplasia (LN) were microdissected and subjected to high-resolution array-comparative genomic hybridization (aCGH), single nucleotide polymorphisms (SNPs) analysis, and loss of heterozygosity analysis. Results were validated using