Breast Cancer Society. The clinical response defined as complete (CR) or partial (PR) response was assessed by caliper, mammography, or ultrasound. BCS rate and adverse events were also evaluated.

Results: Forty-four pts were enrolled and all of them were eligible. The median age was 60 years (range, 48–68). Stage IIA, IIB, IIIA and IIIB were the disease of 26, 8, 4 and 6 pts, respectively. ER and PR positive tumor was in 32 pts, and ER positive and PR negative tumor was in 12 pts. Of 44 eligible pts, three discontinued 4-months EXE due to hematological disorder (grade 3), dizziness (grade 2) or genital bleeding (grade 1), and underwent surgery. There were a few other adverse events, most of which were grade 1. In 41 pts, CR and PR were found in 0 and 27 pts, respectively; clinical response rate was 66%. Stable disease (SD) and progressive disease (PD) were found in 9 (22%) and 5 (12%), respectively. Three pts underwent chemotherapy because of PD. Eight pts refused surgery due to PR or SD after 4-months EXE, and continued EXE. The pathological response was obtained in 13 (43%) of 30 pts who underwent surgery after 4-months EXE; grade 1b in 9 and grade 2 in 4 pts. BCS was performed in 28 pts (93%).

Conclusions: Neoadjuvant EXE is effective and well tolerated in hormone-sensitive, operable breast cancer in postmenopausal pts.

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Epirubicin plus cyclophosphamide vs. weekly paclitaxel as primary systemic therapy in patients with stage II and III breast cancer: randomized phase II study

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Background: Primary systemic therapy (PST), also known as upfront, induction or neo-adjuvant therapy, is given before the standard loco-regional therapy. Not only may it have an effect on potential micro-metastases, but it also has an effect on tumor growth. Response and survival rates achieved by anthracycline and paclitaxel (P) (q 3 weeks (W)) patients (pts) with metastatic breast cancer (BC) are comparable (ECOG1193). Weekly P is expected to produce higher response rates and lower hematological toxicity than tri-weekly P for PST (MDACC2002). The aim of this study was to evaluate the activity and toxicity of weekly P therapy compared with epirubicin (E) plus cyclophosphamide (C) therapy for stage II and III BC with PST.

Methods: Pts with histologically confirmed BC, stage II or III, performance status 0–2, and absence of prior chemotherapy were randomized to either Arm A (EC: E 75 mg/m^2 and C 600 mg/m^2 every 3 W for 4 cycles) or Arm B (weekly P: P 80 mg/m^2 weekly for 12 W). Pts received PST for 12 W, then underwent surgery. All pts received a cross-over regimen as adjuvant chemotherapy after surgery.

Results: As of Sep 2005, 149 pts have been recruited. One hundred and thirty-two pts (Arm A: n = 67, Arm B: n = 65) were evaluable. The clinicopathological characteristics of pts (age, tumor size, stage, hormone receptor (HR) and HER2 status) were well balanced in the two arms. Overall response rate (OR) was 65.7% in Arm A and 66.2% in Arm B. OR in HER2-positive pts was 66.7% in Arm A and 73.9% in Arm B, but there was no significant difference. OR in HR negative pts were equal in both arms. The incidence of grade 3/4 neutropenia (38.6% vs 2.3%, $p < 0.001$) and leukopenia (33.3% vs 0%, $p < 0.001$) were lower in Arm B than in Arm A, while that of nausea(27.5% vs 8.2%, $p < 0.02$) was higher in Arm A. Vomiting and mucositis were more frequently seen in Arm A than in Arm B, but there was no significant difference. The incidence of neuropathy (6.0% vs 52.8%, $p < 0.001$) was higher in Arm B.

Conclusions: Interim analysis of 132 pts suggested that weekly P was associated with lower toxicity than EC therapy, but more frequently induced neuropathy. OR was similar in both therapies. Therefore, induction of PST by weekly P therapy seems to be promising. We are further investigating the pathological response and accrual is still proceeding.

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The effect of pathological response of multicenter phase II trial of fluorouracil, epirubicin, cyclophosphamide (FEC 100) followed by docetaxel (DOC 75) in primary operable breast cancer (JBCRG01: Japan Breast Cancer Research Group)

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Introduction: Preoperative systemic therapy (PST) has been widely used in the treatment of operable breast cancer. This study was designed to evaluate clinical and pathological response, safety, breast conservation (BCS) rate, survival, and translational research of FEC followed by DOC as PST in patients (pts) with operable breast cancer.

Patients and Methods: Eligible patients had primary operable breast cancer with $T_{1c-3}N_0M_0$, $T_{1-3}N_1M_0$, no prior chemotherapy, age 20–60, ECOG Performance Status 0–1, adequate hematological, renal, hepatic and cardiac function, and written informed consent. Preoperative chemotherapy consisted of 4 cycles of FEC (F: 500 mg/m^2, E: 100 mg/m^2, C: 500 mg/m^2) every 3 weeks followed by 4 cycles of DOC (75 mg/m^2) every 3weeks.

Results: From June 2002 to November 2004, 202 pts were enrolled. The median pts age was 46 (range, 25–60). All patients had ECOG Performance Status of 0. Premenopausal was 73%. Tumor stage: T1/T2/T3 7/73/20%. Node positive was 57%. Hormone status: ER positive; 67%, PgR positive; 51%, ER/PgR both positive was 49%. HER2 (IHC) status: 0/1+/2+/3+/unknown 34/27/18/19/2%. Relative dose intensity was 98% for FEC and 95% for DOC. The overall response rate was 73% [95% confidence interval (CI) 66%-79%], with 23% CR, 51% PR. Addition of DOC improved overall response rate from 60% to 73%. BCS was 83%. FEC-DOC treatment, grade 3–4 hematological toxicity included leucopenia 41%, neutropenia 52%, and febrile neutropenia 20%. Grade 3 non-hematological toxicity included nausea 8%, vomiting 6%, fatigue 2%, neuropathy 1%, and myalgia/arthralgia 1%. There were no reports of grade 4 non-hematological toxicity. For pathologic response 190 pts were evaluated by central review. pCR rate was 23% (43/190) [95% CI 17%-29%]. The higher pCR rate was obtained in ER−/PgR−/HER2(3+) pts than in ER+/PgR+/HER2(0) pts [65%(13/20) vs.13%(4/31)].

Conclusion: This is the first multicenter trial in Japan to study of FEC 100 followed by DOC 75 as primary therapy for early stage breast cancer. This regimen was effective and well tolerated therapy for Japanese patients. The results of pathological response suggest that ER/PgR both negative and HER2 positive are correlated with pathological response. From now on relationship between pathological response and prognosis will be analyzed. Further we will analyze apoptosis-related factors.

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The relationship of positive steroid receptor (SR) status with disease outcome in patients treated with adjuvant cyclophosphamide, methotrexate, and fluorouracil (A-CMF) chemotherapy (CHT) and adjuvant endocrine therapy

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Introduction: There is an opinion that SRs are predictive markers for the response not only to endocrine therapy, but also to chemotherapy, with SR-positive breast cancers being less sensitive to chemotherapy. The purpose of this analysis was to determine the relationship of positive SR status with disease outcome in patients treated with adjuvant chemotherapy and adjuvant endocrine therapy.

Patients and Methods: We evaluated a group of 482 early breast cancer patients, diagnosed from 1986 to 1994, who were treated either with adjuvant A-CMF CHT (N = 172), or adjuvant endocrine therapy [ovarian ablation (OA) by irradiation for premenopausal (N = 139), or tamoxifen (TAM) for postmenopausal women (N = 171)]. All patients were either node negative with grade 3 breast cancers, or had 1–3 positive nodes regardless