Results: 29 consecutive pts were included as eligible. As of July 2007, all are evaluable for toxicity, and 26 for response. Earlier therapies consisted of T (100%), anthracyclines (100%), vinorelbine+T (93%), docetaxel+T (62%), and capecitabine+T (69%). 19% experienced PR, and SD $\geqslant$ 6 months was observed in further 27%, resulting in a CBR of 46%. Time to progression (TTP) was median 3 m, range (r) 1−10, 95% CI 1.89−4.11, and overall survival 17 m, r 4−31+, 95% CI 14.68−19.36. CBR and TTP were superior in the 2nd-line setting.

Neutropenia (21%), thrombocytopenia (14%), and nausea (3%) were the only treatment-related adverse events that occurred with grade 3 or 4 intensity. Four pts (14%) developed brain metastases while on therapy.

Conclusions: While CBR was low when compared to T-based first-line therapy, it is higher than what might be expected from G alone in a similar setting. In a trial of G after anthracycline and taxane failure, 26% of pts had SD for $\leqslant$4 m, and no case of PR was observed. Together with the favourable toxicity profile, the regimen appears to be a safe and potentially effective therapy option in a heavily pre-treated population.

431 Poster

Clinical usefulness of high-dose toremifene for patients failed by treatment with aromatase inhibitor

H. Iwase[1], Y. Yamamoto[1], T. Ohtake[2], N. Masuda[3], H. Yamashita[4], S. Saji[5], I. Kimijima[6], Y. Kasahara[7], T. Ishikawa[8], M. Sawaki[9]. *[1]Kumamoto University, Breast and Endocrine Surgery, Kumamoto, Japan; [2]Fukuashima Medical University, Surgery, Fukushima, Japan; [3]Osaka National Hospital, Surgery, Osaka, Japan; [4]Nagoya City University, Breast Surgery, Nagoya, Japan; [5]Tokyo Metropolitan Cancer and Infection diseases center Komagome Hospital, Clinical Oncology, Tokyo, Japan; [6]Northern Fukushima Medical Center, Surgery, Tokyo, Japan; [7]Fukui Saiseikai Hospital, Surgery, Tokyo, Japan; [8]Yokohama City University, Surgery, Yokohama, Japan; [9]Nagoya University, Clinical Oncology, Nagoya, Japan*

Aromatase inhibitors (AIs) have been employed as adjuvant therapy or as first or second treatment for recurrent case. However, when AI treatment fails, it is unclear what endocrine therapy is appropriate and how effective it is. Here we administered toremifene (TOR, Fareston®), a selective estrogen receptor modulator (SERM), at 120 mg/day and investigated its efficacy and safety. Of patients with recurrent or advanced breast cancer who had measurable or evaluable lesions, those who were diagnosed as having progressive disease during AI treatment and given TOR at 120 mg/day (high-dose TOR, TOR120) for endocrine therapy were selected and analyzed retrospectively in relation to the patients' medical history. Of a total of 63 cases examined, the response rate was 14.3%, clinical benefit (CB) rate was 34.9%, and median of time to failure (TTF) was 7.4 months. The last AI used was anastrozole in 20 cases and exemestane in 40 cases. The response rates to TOR120 were 15% in both groups regardless of the kind of preceding treatment drug. When TOR120 was used for secondary or tertiary treatment, the response rate was 20% (8/40), and it was 5.3% (1/20) when used as quaternary or later treatment. There was no response in five ER-negative cases, and was effective at 15.5% (9/58) in ER-positive or unknown cases. There was no difference in the rate between PgR-positive and negative cases. In cases with a HER2 score of 0, the response rate was 17.9% (5/28), while few cases showed efficacy in cases with scores of 1+ to 3+. In cases having received tamoxifen (TAM) previously, TOR120 was effective, with a response rate of 13.2% and CB of 31.6%. With regard to adverse effects, hot-flush and/or night sweating were observed in 10 cases, but all of them were categorized as Grade 1, and the treatment was rated excellent in acceptability. TOR120 was rated excellent in acceptability and high efficacy was observed when it was used up to tertiary treatment for AI failure cases. In addition, it was also considered effective for TAM failure cases.

432 Poster

Treatment of advanced breast cancer with gemcitabine and vinorelbine

C. Gennatas[1], V. Michalaki[1], J. Psychogios[1], S. Gennatas[1]. *[1]University of Athens, Oncology Clinic Department of Surgery Areteion Hospital, Athens, Greece*

Background: Gemcitabine and vinorelbine are both active as single-agent therapy for metastatic breast cancer with favorable toxicity profiles. The purpose of this study was to evaluate the efficacy and safety of the combination of these agents in patients with advanced breast cancer, previously treated with anthracyclines alone or with taxanes.

Patients and Methods: A total of 96 heavily pretreated patients with metastatic breast cancer (median age 63 years, range 35−75 years) with ECOG Performance status of 0−2, entered the study. All patients had received prior adjuvant chemotherapy. Thirty-six patients had been pretreated with anthracyclines, and 8 were resistant. The combination of Gemcitabine (1000 mg/m^2) and vinorelbine (25 mg/m^2) was administered on days 1 and 8 every 3 weeks, for a total of 6 cycles.

Results: A total of 344 cycles of chemotherapy were administered (median 4 cycles per patient, range 1−9). Partial responses were observed in 34 patients (36.0%). The median duration of response was 7.5 months (range 3−11 months) and the median overall survival was 14 months. In the anthracycline pretreated population (n = 36) there were 2 partial responses (5.5%).

The scheme was well tolerated. Grade 3/4 toxicity was limited to leucopenia in 4 patients (4.1%), thrombocytopenia in 2 patients (2%) and anemia in 13 patients (13.5%). No patient was hospitalized due to febrile neutropenia, and there were no treatment related deaths.

Conclusions: The combination of vinorelbine and gemcitabine is an active and manageable scheme in patients with metastatic breast cancer pre-treated with anthracycline-based schedules, or with combinations of anthracyclines and taxanes, demonstrating an acceptable toxicity profile.

433 Poster

Hepatic metastases from breast carcinoma – suitability for resection?

P. Chan[1], A.S. Kaushal[1], L.K.C. Teo[1]. *[1]Tan Tock Seng Hospital, Breast Unit, Singapore*

Background: Liver metastases is found in 6–25% of patients with metastatic breast cancer. The median survival in most of these patients is 1–14 months. As mortality & morbidity of liver resections decrease over the past decade, the indications of surgery has widened for metastatic disease. Hepatic resection for liver secondaries from breast cancer has showed significant improvement in survival. The aim of this study is to determine what proportion of breast cancer patients with hepatic metastases is suitable for surgical treatment.

Methods: This is a retrospective review of 58 patients with breast cancer from January 2002 to December 2007 who have hepatic metastases. Patients were divided into whether they have extra hepatic metastases (EHM). For patients without EHM, we consider standard indications for liver resections for any liver tumour to determine suitability. The indications include number of liver lesions, albumin levels, liver reserve, fitness for operation and good respond to chemotherapy.

Results: The mean age of the patients is 57. Incidence of hepatic metastases in our centre is 5.8%. 27 (47%) patients were found to have metastases at the time of diagnosis while the rest have systemic recurrence after initial treatment. The majority of our patients (84%) have EHM which we considered as an unfavourable indication for hepatic resection. Of the 11 patients without EHM, only 1 (2%) patient was considered to have been suitable for surgery. 6 patients had low liver reserve and low serum albumin while 4 patients with normal serum albumin had diffuse hepatic involvement. The last patient with normal albumin level had 2 lesions but the disease is bilobar and she did not respond to chemotherapy and died 3 months after diagnosis.

Conclusion: Majority of breast cancer patients with hepatic metastases present either with concurrent EHM or with diffuse disease and other unfavourable factors which preclude surgical resection. Nevertheless physicians must identify the small subset of patients who are suitable for liver resection as this is likely to significantly prolong survival.

434 Poster

A phase II trial of weekly docetaxel and trastuzumab in metastatic breast cancer

A. Taran[1], K. Wollschlaeger[1], B. Blümel[1], E. Kettner[2], S.D. Costa[1], J. Bischoff[1]. *[1]Universitätsfrauenklinik, Gynecology, Magdeburg, Germany; [2]Städtisches Klinikum, Gynecology, Magdeburg, Germany*

Background: Docetaxel (D) in combination with trastuzumab (T) has demonstrated significant activity in patients with HER2neu positive metastatic breast cancer (MBC). Main toxicities of this regimen include leukopenia, febrile neutropenia and infections. Weekly administration of D has been reported to have reduced haematological side effects and comparable efficacy to 3 weekly protocols. In a multicentre trial we assessed tolerability and activity of a weekly schedule of D and T.

Material and Methods: 46 women with HER2neu positive metastatic breast cancer were treated with weekly doses of D (35 mg/m^2 for 10 weeks) and T (4 mg/kg loading dose, then 2 mg/kg). Median age was 55 (34−78) years, 80% of the patients had visceral metastases. Most patients had received adjuvant chemotherapy (66 %) (anthracyclines (A) 33%, CMF 33%, A-CMF 10%, taxanes 4%), and 33% have had chemotherapy for MBC.

Results: Objective response rate was 42% (6 CRs and 12 PRs) and 38% of the patients had stable disease. Median time to progression was 6 months (95 % CI 5−9), and a 1y – survival rate of 64% was noted. Median

survival was 18 months (95% CI 12−30). 46 patients were assessable for safety. The incidence of grade 3/4 leucopenia and neutropenia was 20%, respectively 8%. Other observed grade 3/4 toxicities were onycholysis and skin toxicity in 13%, respectively 4% of patients. We observed 2 episodes of grade 3 diarrhea, and 8 infections.

Conclusions: Weekly D and T is an active regimen with a favourable toxicity profile and considerable activity even in heavily pre-treated patients. Several reasons for the inferiority to the q. 3 week schedule can be discussed: 4 patients have failed to be evaluated for response after 10 weeks; a relevant number of heavily pre-treated patients (15%) have been enrolled. Further updates will be presented.

435 Poster

Fulvestrant in metastatic breast cancer previously treated with aromatase inhibitors

J. Ribeiro[1], I. Luís[1], M. Fortunato[2], L. Correia[3], A. Quintela[1], P. Cortes[1], L. Costa[1]. [1]*Hospital Santa Maria, Serviço de Oncologia, Lisboa, Portugal;* [2]*Hospital Santa Maria, Serviço de Radioterapia, Lisboa, Portugal;* [3]*Hospital Santa Maria, Serviço de Anatomia Patológica, Lisboa, Portugal*

Background: Breast Cancer patients with hormone-dependent disease are frequently treated with Aromatase Inhibitors (AI) in the adjuvant as well as in the palliative setting. In some of these patients Metastatic Breast Cancer (MBC) progression is still responsive to endocrine therapy (ET). Fulvestrant is effective in MBC after AI treatment. Some pre-clinical studies suggest that MBC progression under AI treatment is reversible by adding Fulvestrant (Jelovac et al. Cancer Res 2005; 65: 5439–5444).

In this retrospective study we examined the efficacy of Fulvestrant as single ET agent or combined with an AI in progressive MBC disease after AI treatment.

Material and Methods: This retrospective study included 39 MBC patients with the following characteristics: median age: 65 years (37−89). Previous ET: 3 (1−4); Sites of metastases: bone 69%; skin 23%; Liver 26%; Lung 13%; other 23%. Twenty-two (56%) patients had one site of metastases only (12 had bone metastases) and 17 patients (44%) had >1 site of metastases.

ER, PR and Her-2neu co-expression were analyzed. All patients were ER and or PR positive at the primary tumor.

Efficacy was assessed by Clinical Benefit (CB): stable disease >6 month plus objective remission.

Eight patients (20.5%) received Fulvestrant and continued on the AI previously prescribed for MBC whereas 32 patients got Fulvestran as a single ET agent after AI treatment.

Results: The median time to progression (TTP) was 5.7 months (1−23). CB was observed in 14 patients (35%) – 12 had stable disease >6 months and one had partial remission of skin metastases. In patients with CB the median TTP was 12 months (7−23).

In patients treated with Fulvestrant plus AI the median TTP was 5.4 months compared with a median TTP of 5.7 months in patients with Fulvestrant ET alone.

In 12 patients, metastatic tissue was available for ER and PR expression. The median TTP in 11 patients with ER and/or PR ve+ at metastatic tissue was 4.5 months.

Patients with 2 prior ET had a median TTP of 8 months compared with 5.3 months (3 prior ET) and 4.8 months (4 prior ET).

Conclusions: Fulvestrant may be an effective ET option in MBC after AI treatment possibly providing long-term CB. Our results do not suggest that AI should be maintained in patients eligible for Fulvestran. In a subgroup of patients with metastatic tissue analyzed there was no correlation between ER and/or PR expression at metastatic level and Fulvestrant effectiveness. In our study prior number of ET was negatively correlated with TTP.

436 Poster

New therapeutic options significantly improved overall survival in HER-2-positive metastatic breast cancer patients

A. Jagiello-Gruszfeld[1], S. Szablowska-Siwik[1], M. Czerniawska-Meler[1], A. Skrzypczyk[1]. [1]*Oncology Centre of Olsztyn, Chemotherapy, Olsztyn, Poland*

Background: In metastatic breast cancer (MBC), positive HR constitute a favorable prognostic factor and predict response to the hormonal therapy. On the contrary HER-2 overexpression is an adverse prognostic factor associated with a more aggressive tumor. In this retrospective study we analyzed overall survival (OS) of four phenotypes: HR−/HER-2− (triple negative); HR+/HER-2−; HR+/HER-2+ and HR−/HER-2+.

Methods: We evaluated 75 patients with a MBC treated at our Center during 2005. A comparative lecture of estrogenic, progestative and HER-2 receptors was performed by IHC. The 44% of patients had a luminal phenotype, 40.3% patients were HER-2+ and 15.7% patients were triple negative. The median age of patients was 54.8 years (range: 29−70). Localizations of metastatic lesions, Karnofsky Performance Status and the mean of age were similarly in each group. All pts HR+ received at least 2 line of hormonal treatment, all pts HER-2+ received trastuzumab or trastuzumab and lapatinib.

Results: Patients HR+ received on average 3.13 lines of therapy (range, 1−7). Patients HER-2+ on average received 4.09 lines of therapy (range 1−7). Patients triple negative received only 3 lines of therapy (range: 1−4).

At the medium term of follow-up 34 months, no difference in proportion of CNS involvement in both group: HER-2+ and HER-2− (26% vs 27%) were found.

The median of OS for the whole group was 32 months. Any statistical significantly differences in OS was noted in pts with luminal phenotype, HER-2+ or triple negative pts, but a strong trend to decreased a overall survival in triple negative group was noted (24 vs 36 months).

Conclusions: These results suggest that HER-2+ (treated with trastuzumab) and, HR+ metastatic breast cancer pts, have a distinct and favorable biological nature than pts with triple negative. The new option of treatment is definitely needed for this pts group.

437 Poster

Retrospective analysis of patients with poor prognostic factors and metastatic breast cancer in a phase III study comparing nab-paclitaxel to solvent-based paclitaxel

T. Camburn[1], S. Tjulandin[2], N. Davidson[3], J. O'Shaughnessy[4], P. Bhar[5], W. Gradishar[6]. [1]*Broomfield Hospital, Oncology, Chelmsford, United Kingdom;* [2]*Blokhin Cancer Research Center, Oncology, Moscow, Russian Federation;* [3]*Broomfield Hospital, Medicine, Chelmsford, United Kingdom;* [4]*US Oncology, Oncology, Houston, USA;* [5]*Abraxis BioScience Inc., Biostatistician, Los Angeles, USA;* [6]*Northwestern University Feinberg School of Medicine, Medicine, Chicago, USA*

Background: Overall, nanoparticle albumin-bound (nab)-paclitaxel demonstrated superior antitumor activity compared with solvent-based paclitaxel in a phase III trial of patients with metastatic breast cancer (MBC). The efficacy of nab-paclitaxel in patients with poor prognostic factors was examined in the current analysis.

Material and Methods: This was a retrospective analysis of a multicenter, randomized, phase III efficacy trial of nab-paclitaxel (CA-012). Patients (⩾18 years of age) received either nab paclitaxel 260 mg/m^2 or 175 mg/m^2 solvent-based paclitaxel intravenously every 3 weeks for treatment of MBC. Subgroups included patients with or without visceral dominant lesion sites and with ⩾3 or <3 sites of metastases.

	Visceral disease		Nonvisceral disease		⩾3 metastases		<3 metastases	
	Nab-pac (n = 177)	SB-pac (n = 182)	Nab-pac (n = 51)	SB-pac (n = 43)	Nab-pac (n = 141)	SB-pac (n = 117)	Nab-pac (n = 85)	SB-pac (n = 107)
ORR, %*	34	19	34	19	26	17	46	20
P-value	0.002		0.074		0.092		<0.001	
TTP, wks	21.9	16.4	24.4	19.3	19.4	16.3	28.4	16.9
P-value	0.036		0.026		0.053		0.014	

Nab-pac = Nab-paclitaxel; SB-pac = Solvent-based paclitaxel; ORR = Overall response rate; TTP = Time to disease progression.

*Overall response rates for visceral vs nonvisceral disease were reported previously (Gradishar et al. J Clin Oncol. 2005;23:7794–7803).

Conclusions: Patients treated with nab-paclitaxel had superior overall response rates and significantly longer time to disease progression regardless of baseline prognostic factors. Patients with extensive disease had a >20% reduction in the risk of disease progression compared with solvent-based paclitaxel.

Friday, 18 April 2008 12:30–14:30

POSTER SESSION

Predictive and prognostic factors

438 Poster

The cancer of the male mammary gland in men in Armenia

I. Khachaturyan[1]. [1]*National Center of Oncology, Mammology 2, Yerevan, Armenia*

Goal: To study the relevance of certain clinical-morphological indicators for the prognosis of the disease.