respectively. All 74 Group B cases had at least 1 SN identified, and only 1 false-negative case occurred in this group, i.e. the accuracy and false-negative rate were 99% and 3%, respectively. Axillary dissection could be avoided in 25 patients of group C, was performed at the same time as the SNB in 15 and as a second operation in 10. Till now, no axillary recurrence was detected in group C patients, although the follow-up period is short for the moment.

The dye only and the radioguided SNB methods are complementary, their combination improves the performance, and can be the basis of performing axillary dissection on the basis of SNB results.

104 POSTER

Radioguided localization of non-palpable breast lesions and simultaneous sentinel lymph node mapping

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A new strategy of radioguided breast surgery combining ROLL and SLN mapping is presented. In 38 patients with mammographic non-palpable lesions (BI-RADS 4 and 5) it was injected at the lesion center 0,5 ml of a solution with dextran and 15 MBq of 99m Tc on the day before surgery. The patients were submitted to open surgical biopsy guided by probe, radiographic control of the specimen, frozen sections and SLN biopsy when necessary. The rates of lesion removal and simultaneous SLN mapping were 100% and 97,3%. In the first 8 malignant cases SLN and other axillary nodes were dissected, in the last 5, only SLN was dissected. In all of them intraoperative and definitive SLN analysis were negative, as well as the other dissected nodes. It is concluded that ROLL and SLN can be used simultaneously in non-palpable breast lesions allowing many advantages over the conventional procedures.

105 POSTER

Accuracy of sentinel node biopsy in predicting nodal status in patients with breast carcinoma

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Background and Purpose: Sentinel node biopsy (SNB) has been gaining popularity as an accurate axillary staging procedure. We retrospectively analyzed our data with the following purposes: 1) to assess the relation of axillary lymph nodes (ALN) and sentinel nodes (SN) metastases to the pathobiological characteristics of the primary tumor evaluated by postoperative histological examination, in order to develop a panel predictive for the SN status; 2) to evaluate the safety of avoiding ALN dissection (ALND) in patients with negative sentinel node biopsy (SNB).

Patients and Methods: We performed lymphatic mapping and SNB using the gamma detecting probe on 145 patients with T1-T2 breast cancer and clinically negative axilla. All patients underwent either quadrantectomy or mastectomy based on the size of the tumor and complete ALND. We assessed the relation of ALN metastases and SN metastases to the following pathobiological characteristics of the primary tumor: size, grading (G), hormone receptors (estrogen and progesterone) status, proliferative index (Mib-1), lymphovascular invasion (LVI) and c-erbB-2 expression.

Results and Discussion: SNB was positive in 49 (33.8%) of the 145 patients. Concordance between SNB and ALND was 96.6% (sensitivity: 90.7%; specificity 100%; vpp: 100%, vpn 94.8%). Five (9.3%) of positive ALND were SNB negative: all of these patients were T * 20 mm or G *2. 19% of positive ALND was T<20 mm: nobody in this subgroup was G1/Mib-1 < 13%, c-erbB-2 negative. Many authors have investigated the predictivity of the pathobiological characteristics of the primary tumor on the ALN and SN status. In our series, LVI and tumor size were significantly associated with ALN involvement (p=0.001 and 0.023 respectively). In the full logistic regression model the area under the ROC curve was 76.5%.

Conclusions: The ability of SNB to predict ALN status is very high. Primary tumor characteristics had no predictive value when singularly analysed, though LVI and tumor size were significantly associated with SN and ALN metastases. Our data confirm the validity of SNB to avoid axillary dissection, nevertheless patients with tumor size* 20 mm (T2) and negative SNB should be submitted to ALND.

106 POSTER

SLN biopsy in cases of breast carcinomas submitted to neoadjuvant chemotherapy

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The objective of this study was to evaluate the capacity of SLN in predicting axillary nodal status in breast cancer patients treated by neoadjuvant chemotherapy. A total of 89 cases of infiltrating carcinoma (T1-2, No) were submitted to breast surgery and SLN biopsy followed by full axillary dissection. On the day before surgery it was injected 15 MBq of 99m Tc labelled to dextran in the peritumoral area. SLN was identified by lymphoscintigraphy and excised by probe guidance. In 47 cases (group 1) the patients received 3 AC cycles previously to surgery and in 42 (group 2) surgery was performed without neoadjuvant therapy. In group 1, in 29 cases SLN were negative and among them there were 4 cases of other nodes involvement, and in 18 cases SLN was positive. The accuracy of SLN biopsy was 91,4% in group 1 and 100% in group 2, and false negative rate were 13,7% and 0% respectively. It was concluded that neoadjuvant chemotherapy impairs the capacity of SLN in predicting axillary status.

Wednesday, 20 March 2002 16:30–18:00

PROFFERED PAPERS

Locally advanced and metastatic disease

107 ORAL

Weekly docetaxel as neoadjuvant treatment in stage II and III breast cancer. Final results of a phase II, multicenter GEICAM study

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Purpose: This phase II study evaluated the efficacy and safety of weekly docetaxel as neoadjuvant chemotherapy in women with breast cancer. Furthermore, the pathological complete response (pCR) was determined and correlated with molecular markers such as Her2/neu, estrogen receptor (ER) and Ki-67 labeling index.

Patients and Methods: Eligible patients had measurable stage II or III untreated breast cancer. Docetaxel 40 mg/m2 was given intravenously once a week, for 12 weeks (wks) with a 2 wks rest after the first 6 wks. Tumor biopsies were performed before treatment to determine molecular markers status. Her2, ER and Ki-67 were analysed by immunohistochemical assay.

Results: A total of 56 patients were evaluable for efficacy and safety. Median age was 53 years (28-73). Patients had a median tumor size of 4.6 cm (2-11). Initial stage was II (87%) and III (13%). Pre and postmenopausal was very similar (44% vs 50%, respectively). A total of 649 infusions were administered with a median of 12 per patient (3-18). Median relative dose intensity was 100% for docetaxel. The overall response rate was 68% (29% complete response and 39% partial response). Surgery was performed in 52 patients of whom 9 (17%) achieved a pCR. Non-hematological toxicity was more common than hematological toxicity, with alopecia and asthenia the most frequently reported adverse events (89% and 77% of patients, respectively). Hematological toxicity was infrequent. One patient presented with grade 3/4 anemia, and 2 patients grade 3/4 neutropenia. Regarding of the molecular marker status and pathological response to docetaxel, there did not appear to be a correlation between pCR and status of Her2, ER and Ki-67. Although not statistically significant, none of the patients with Her2/neu-positive tumors achieved a pCR.

Conclusion: This is one of the first reports of weekly docetaxel as neoadjuvant treatment of stage II and III breast cancer. This regimen appears very active in terms of pathological response with manageable toxicity. In addition, in this trial the Her2/neu status showed no correlation with the pathological response to docetaxel.

108 ORAL

Promising clinical and pathological response rates with neoadjuvant sequential doxorubicine (DOX) and docetaxel (DOC) in locally advanced breast cancer (LABC)

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Introduction: DOX is considered as the best single agent for treatment of advanced breast cancer and plays an important role in adjuvant treatment. Many observations showed that taxanes, especially DOC, still could remain active in DOX resistant cases. It is therefore logical to try to combine these 2 agents. Instead of giving them simultaneously at reduced dosis, we gave full dosage of both sequentially to patients with LABC.

Patients and Methods: Between 06/97 and 08/99, 50 patients (7 IIIa, 43 IIIb), received first 2 cycles of DOX 75 mg/m2 (q3w), followed by 2 cycles DOC 100 mg/m2 (1 hour infusion, q3w). Clinical, biochemical and radiological evaluation were performed after 2 and 4 cycles. Thereafter, loco-regional treatment was administered and further systemic treatment was planned in function of the observed response.

Results: By clinical evaluation according to the UICC criteria, 39 patients (78%) had objective regression (13 CR, 26 PR). Dose reduction during 2nd course of DOC (75%) was only necessary because of leucopenia (1) mucositis(1) and myalgia(1). After completion of this neoadjuvant chemotherapy, 1 pt refused further treatment after a CR. Local treatment consisted of radiation therapy (RT) only in 4 pt. and surgery followed by RT in 45 pt. (BCT in 7 pt.) Pathologic examination in the latter showed disappearance of invasive tumor in the primary tumor in 9 pt. (20%), of which 3 had still persisting DCIS. Subsequent systemic therapy was adopted to the initial ER status (tamoxifen for ER+(/PR+)), and to the pathological axillary node status (adjuvant chemotherapy if node negative).

Conclusions: We conclude that sequential administration of doxorubicine and docetaxel induces of a high response rate within 12 weeks without major toxicity. This regimen seems very promising and can be compared to others for inducing response in LABC.

109 ORAL

Sequential treatment with doxorubicin and docetaxel as first-line chemotherapy in metastatic breast cancer (MBC). Final results of a Phase II GEICAM study

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Purpose: This phase II prospective study determined the efficacy and toxicity profile of sequential administration of doxorubicin and docetaxel as first line chemotherapy in MBC.

Patients and Methods: Patients (n = 81) had histologically proven MBC or local recurrence, ECOG performance status (PS) < or = 2, measurable disease, adequate bone marrow, renal and hepatic function. The first 35 patients received sequential treatment of doxorubicin, 75 mg/m2 every 14 days for three courses, followed by docetaxel, 100 mg/m2 every 21 days, plus daily G-CSF support. The next 46 patients had a change in doxorubicin schedule to 75 mg/m2 every 21 days and no G-CSF support.

Results: Eighty-one patients were entered onto the trial with a median age of 51 years (27-67). ECOG PS 0-1: 89%. 54% of patients received previous adjuvant chemotherapy. Median number of involved sites was 2. A total of 436 cycles were administered (median 6, range 1-6), 236 of doxorubicin and 200 of docetaxel. Median relative dose intensity for doxorubicin was 98% or 100% when administered every 14 or 21 days, and 98% for docetaxel. Of 73 patients evaluable for efficacy, an ORR of 53% (95% CI: 41.4 -65.2) was observed after doxorubicin treatment and 74% (95% CI: 62.3 -83.1) after the entire sequential treatment. An additional 15 complete responses were achieved during docetaxel treatment. A high ORR was observed in all subgroups analyzed (lung 75%, liver 59%, soft tissue 90%). Patients with no previous adjuvant chemotherapy (46%, n = 37) achieved an ORR of 81% versus 66% obtained in patients with previous adjuvant treatment). Median time to progression and duration of response was 8.7 and 9.8 months respectively. Median overall survival has not been achieved yet. All patients were evaluable for toxicity. Overall, febrile neutropenia was observed in 3% of cycles and 11% of patients. Grade 3-4 neutropenia was found in 5% of cycles and 20% of patients. Other important grade 3-4 toxicities were asthenia (21% of patients, 4% of cycles), stomatitis (20% of patients and 4% of cycles) and vomiting (15% of patients, 3% of cyles).

Conclusion: Sequential treatment with doxorubicin and docetaxel is a very active regimen with an ORR of 74% and has a manageable toxicity profile as first line treatment in MBC.

110 ORAL

Randomized phase III study of epirubicin (E) versus gemcitabine (G) chemotherapy in elderly females with metastatic breast cancer (MBC)

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Introduction: Elderly women comprise a large proportion of MBC patients, yet the role of chemotherapy in these patients has not been thoroughly investigated. This large multicenter randomized phase III study was performed to assess E versus G monotherapy in elderly patients (pts) with MBC. The primary objective was to compare time to progressive disease (TTPD). Response rate, time to response, response duration, survival, toxicity, quality of life (QoL), and medical resource utilization (MRU) were secondary objectives.

Patients and Methods: Post-menopausal women >60 yrs with MBC without prior systemic chemotherapy for metastatic disease, Karnofsky performance status (PS) greater than or equal to 60, and adequate hepatic, renal, and bone marrow function were entered. Patients were randomly assigned to E (35 mg/m2 days 1, 8, and 15) or G (1200 mg/m2 days 1, 8, and 15) every 28 days. Therapy was continued until progression, intolerable toxicity, or up to 12 cycles of G or to a total dose of 840 mg/m2 of E. All responses were independently reviewed. Time-to-event estimates were calculated using the Kaplan-Meier method and compared using the log-rank test.

Results: Between 10/96 and 2/99, 397 pts were randomized (E 199, G 198) in 18 countries. The arms were generally well balanced. The median age was 68 yrs on E and 69 yrs on G; most pts had a PS greater than or equal to 80 (E 77%, G 79%). Estrogen receptor negative disease was present in 20% of pts on E and 21% on G. Tumor response was significantly higher with E (40% vs 16%; $p < 0.01$). No significant differences between treatments were seen with time to response and duration of response. TTPD was significantly better with E (6.1 mos vs 3.4 mos; $p < 0.01$). Mature survival results are not available at this time. No clear differences between treatments were noted in QoL and MRU. The median number of cycles was 5 for E and 3 for G. Both drugs were well tolerated, with hematologic toxicity the most common toxicity on both arms. Grade 3/4 neutropenia occurred in 18% and 26% of patients on E and G, respectively. Alopecia and mucositis were also seen with E.

Conclusions: The results of this large multicenter phase III study demonstrate the effectiveness and safety of chemotherapy in elderly women with MBC. E was more effective than G in terms of TTPD and response. (Supported by Eli Lilly and Company.)

111 ORAL

Epirubicin and vinorelbine versus single agent epirubicin as first line chemotherapy in metastatic breast cancer

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This phase III trial compared the efficacy and safety of a sufficient dose of single agent epirubicin (E) to the same dose of epirubicin plus vinorelbine (EV).

Methods: A total of 387 patients were randomly assigned to receive E 90 mg/m^2 day 1 or E 90 mg/m^2 day 1 and V 25 mg/m^2 day 1 + 8 given

intravenously every 3 weeks until progressive disease, unacceptable toxicity or a maximum of one year. The maximal cumulative dose of E was 950 to 1000 mg. No prior chemotherapy for advanced disease or prior treatment with E or V was allowed.

Results: Progression-free survival was significantly longer with EV compared to E alone. The combination was associated with a higher frequency of leucopenia, stomatitis and peripheral neuropathy.

Summary of results:

	E	E + V	Hazard ratio	p
RR	42%	50%	1.38	0.14
PFS (months)	8.2	10.1	0.75	0.019
Survival (months)	18.0	19.1	0.90	0.13

Conclusion: The addition of vinorelbine to epirubicin, although associated with increased toxicity, significantly improves PFS.

112 ORAL

Phase III trial of anastrozole (AN) vs tamoxifen (TAM) in postmenopausal (PM) patients (pts) with hormone-dependent advanced breast cancer (ABC)

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Introduction: TAM has long been considered the gold standard therapy for hormone-sensitive breast cancer. However, its side-effects are well recognized, so new drugs that lack these side effects yet conserve or improve the efficacy of TAM are needed. AN, a third-generation non-steroidal aromatase inhibitor (AI), has been shown to be a potent, selective and well tolerated agent in PM pts with ABC.

Methods: In our prospective, double-blind, randomized Phase III trial, we compared AN (1mg daily) with TAM (40mg daily) in PM pts with oestrogen receptor (ER) positive ABC (pts recruited between May 1997 and December 1999). Overall response ([OR] = complete response [CR] + partial response [PR]), clinical benefit ([CB] = CR + PR + stable disease greater than or equal to 24 weeks), median time to disease progression (TTP) in pts achieving a CB, and tolerability, the main endpoints, were evaluated after 3 months' therapy.

Results: 238 pts were recruited (median follow-up was 13.3 months). The efficacy results are shown in the table. Survival was assessed as the number of pts who had died by April 2001 (60% vs 89%, AN vs TAM). Both agents were well tolerated. Our results suggest that AN is more effective than TAM in PM pts with ER positive ABC, and are the first to demonstrate a survival advantage for AN over TAM.

	AN (n=121)	TAM (n=117)	HR, 95% CI (where analysed) (p values)
OR (no. [%])	43 (36)	31 (26)	p=0.172
CB (no. [%])	100 (83)	65 (56)	p<0.001
Median TTP in pts achieving CB (mths)	18.0	7.0	0.13, 0.08-0.20, p<0.01
Median survival (mths)	17.4	16.0	0.64, 0.47-0.86, p=0.003

Conclusion: These data add further support to the routine use of AN as first-line treatment for PM pts with hormone-dependent ABC.

113 POSTER

Population based cost-effectiveness analysis of combination capecitabine and docetaxel (DC) versus single agent docetaxel (D) in the treatment of metastatic breast cancer (MBC) following an anthracycline regimen

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Background: In British Columbia (B.C.), with socialized medicine and an annual cancer drug budget of $48 million CDN, new agents and treatment protocols are in jeopardy due to insufficient government funding. The objective of this study was to assess the potential population based cost-effectiveness (CE) of the introduction of a new chemotherapeutic combination (DC) compared to current standard single agent taxanes in the systemic therapy of MBC following an anthracycline regimen.

Methods: Actual detailed utilization data for all patients receiving systemic therapy for MBC in the province of British Columbia (population of 4.06 million) averaged over the 2 most recent years was reviewed to determine eligible patients and tolerated doses and durations. A detailed costing model incorporating all drugs, supplies and labour costs was utilized. The model incorporated the clinical outcome and dose reductions utilized from the large randomized, controlled trial of DC vs D in 511 women with MBC and prior anthracyclines (O Shaughnessy J, et al. San Antonio Breast Cancer Symposium 2000). CE ratios were calculated and sensitivity analyses around frequency of use of DC versus a single agent taxane followed sequentially by capecitabine were performed.

Results: From 1999-2001 an average of 264 patients per year received a taxane for the treatment of MBC in the province of B.C. Over the same time period, an average of 62 patients per year previously treated with a taxane sequentially received capecitabine at some later point. Assuming that all patients who received capecitabine following a taxane (n=62) would be eligible to receive DC instead, there would be a cost savings of $32,765 per year. The incremental CE ratio would be -$4,254 per life year (LY) gained. According to the high end of the sensitivity analyses, the scenario that all sequential capecitabine patients (n=62) plus 75% of remaining single agent taxane patients (n=148) would receive DC instead, the incremental cost and CE ratio for the province would be $454,981 and $8,524 per LY gained respectively.

Conclusion: Within the limitations of available comparative literature and the estimate of patient uptake, based on population utilization data the CE of combination DC therapy for MBC is a dominant strategy predicted to improve survival at a lower cost than sequential therapy.

114 POSTER

Routine follow-up after radical therapy of primary breast cancer

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The objectives was to describe the pattern of recurrence in patients radically treated for primary breast cancer and to determine whether the postoperative follow-up program influences the prognosis. Design: Retrospective follow-up study of patients developing recurrence after treatment for primary breast cancer. Review of records and information from the Danish Breast Cancer Cooperative Group (DBCG) database; 142 patients with high risk of recurrence, who were treated according to DBCG-77 and -82 protocols, and who were operated and followed at Herlev Hospital. The patients were divided into two groups: patients with recurrence diagnosed at routine follow-up visits, and patients with recurrence detected in the interval between two scheduled visits. Endpoints: Comparisons of the pattern of recurrence and survival of patients with recurrence detected at regular follow-up visits (routine group) versus patients developing recurrence between two scheduled follow-up visits (interval group). The main outcome was recurrence free interval, survival after recurrence and overall survival from primary diagnosis. Methods: Survival was estimated by the Kaplan-Meier's method, and the log rank-test was used to evaluate differences in survival. There were 53 patients with recurrence detected at routine follow-up, while 89 patients had recurrences diagnosed in the interval between two scheduled visits: 39% applied on there own, 40% were referred from the general practitioner while 20% were referred from another hospital. In the interval group the patients more often had symptoms (99%) than in the routine group (64%). Pain was the most predominant symptom and a palpable nodule was the most frequent finding. Chest wall recurrences were more common among patients in the routine group, whereas bone metastases were observed more often in the interval group. The recurrence free interval was significantly longer in the group of patients with interval recurrence, while no differences were observed between the two groups of patients with respect to survival after recurrence and overall survival from primary diagnosis. Thus, it was not possible to detect any difference in mortality according to the circumstances of recurrence detection in patients followed up after primary breast cancer.

115 POSTER

Usefulness of Xeloda, capecitabine for metastatic breast cancer (MBC) in the ambulatory practice

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Capecitabine is an oral fluoropirimidine with demonstrated activity in breast (Blum J et al, J Clin Oncol, 17: 485-493, 1999) colon cancer (Hoff PM etal, J Clin Oncol 19: 2282-2292, 2001). Due to its particular mechanism of activation within the tumor, and oral administration, it is an attractive alternative for the palliative treatment of MBC.

Objectives: Evaluate the toxicity and the overall response of capecitabine in the ambulatory practice in previously treated patients with MBC.

Patients and Methods: Between March 1999 and February 2001, 44 pts. who had been trated in 5 different hospitals, were evaluated. Capecitabine was administered as an initial dose of 2500 mg/m2/day 1 to 14 every 21 d'as. Median age was: 57 years (r: 34-75). Performance Status: 0/1/2, 10/25/4 pts. Median number of metastatic sites was 2, (r: 1 to 5). Previous chemotherapy: 18/44 pts. (41%) had already received 3 or more lines of chemotherapy for advanced disease and 31/44 pts.(70%) had previously received 5-FU (19 in the adyuvant setting and 12 in advanced disease). 208 cycles of treatment were evaluated, median 4,5 cycles 25-75 percentil (2 and 6) and a media of 4,9 (r: 1 to 15). Toxicity: 29/44 pts. (66%) had some grade of toxicity, in 14/44 (32%) toxicity was grade 3-4. Toxicity G3: alergy, 1/44 (2,3%); nauseas, 3/44 (6,8%); vomits, 3/44 (6,8%); diarrea, 2/44 (4,5%); mucositis, 1/44 (2,3%); neutropenia, 1/44 (2,3%); trombocithopenia, 2/44 (4,5%); astenia, 2/44 (4,5%); had-foot syndrome, 8/44 (18,2%). Toxicity G4: diarrea, mucositis and neutropenia 1/44 (2,3%). Responses: 11/44 pts.(25%) are still under treatment. OR 19/44 pts. (43%), one of them with a CR evaluated by the doctor treating her. NC 16/44 pts. (36,4%); PD 8/44 pts. (18,2%).

Conclusions: The toxicity observed in this unselected, heavily pretreated group of patients is similar to the one described in clinical trials. Doses had to be reduced in 9/44 patients (20%), and 11/44 pts.(25%) had to interrumpt treatment due to toxicity without modifying the response. The median follow-up is too short (8 months) so as to make actuarial conclusions.

116 POSTER

Cost-effectiveness analysis of anastrozole ('Arimidex') versus tamoxifen as first-line therapy in postmenopausal women with hormone receptor-positive (HR+) advanced breast cancer (ABC): a UK perspective

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Introduction: A retrospective analysis of combined data from 2 large, randomised, multicentre trials showed that the median time to progression was significantly longer with anastrozole (n=305) than tamoxifen (n=306) in postmenopausal women with HR+ ABC when administered as first-line therapy (10.7 vs 6.4 mths; P=0.022, 2-sided). We report a cost-effectiveness analysis, which compared anastrozole and tamoxifen in patients with HR+ ABC from the perspective of the National Health Service (NHS) or other 3rd-party payers in the UK.

Methods: Efficacy, tolerability and resource-utilisation data were obtained from 2 large randomised, multicentre, double-blind trials which compared anastrozole 1mg/day with tamoxifen 20mg/day as first-line therapy in ABC patients (n=1021).1 Only data from HR+ patients were considered in the analysis (n=611), since it is this patient population who will benefit from endocrine therapy. Direct healthcare costs were obtained from published UK sources and analysed using a 2-stage regression model. Quality-adjusted time to progression (QATTP), a composite measure of efficacy and tolerability that devalues time spent with treatment-related toxicities, was selected as the measure of effectiveness and analysed using a proportional hazards model. QATTP was calculated using severity-specific utilities for the toxicities. Treatment by country interaction was tested and appropriate sensitivity analyses were carried out. The time horizon of the analysis was from initiation of treatment to death.

Results: Median QATTP favoured anastrozole over tamoxifen (8.2 vs 5.6 mths; P=0.015). Incremental drug costs favoured tamoxifen by £927, whereas the cost of treating adverse events associated with the study treatments prior to progression and the total cost of treatment after disease progression favoured anastrozole by £604 and £4170 respectively (P<0.01) giving an overall incremental cost advantage to anastrozole of £3847/patient.

Conclusions: When administered as a first-line agent until relapse in women with HR+ metastatic breast cancer, anastrozole is associated with longer QATTP and lower overall costs than tamoxifen, and is therefore more cost-effective than tamoxifen. The perspective was that of the NHS and other 3rd-party payers in the UK.

References

[1] Bonneterre J, et al. Cancer 2001; 92: 2248-58.

117 POSTER

Docetaxel with epirubicin as first line chemotherapy in metastatic breast cancer (MBC). Final results of a Phase II study

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Purpose: The aim of this prospective phase II study was to evaluate the efficacy and safety profile of the combination of docetaxel and epirubicin as first line treatment in MBC.

Patients and Methods: Patients with histological or cytological diagnosis of MBC without previous chemotherapy for metastatic disease, WHO performance status (PS) < or = 2, measurable or evaluable disease, adequate bone marrow, renal and hepatic function were included in the study. Eligible patients received epirubicin (75 mg/m2) and docetaxel (75 mg/m2) iv once every 3 weeks, for 6 cycles. G-CSF support was administered in the event of grade 3-4 neutropenia.

Results: A total of 133 patients were included with a median age of 52 years (29-74). WHO PS 0-1: 92%. 44% of patients received previous adjuvant or neoadjuvant chemotherapy. Metastasis were located in bone (36%), lung (31%) and liver (28%). 60% of patients had 2 or more metastatic lesions. Two patients had to be withdrawn due to cardiac toxicity although no patients developed congestive heart failure. A total of 700 cycles were administered (median 6, range 1-6) with a median relative dose intensity of 98% for both drugs. Prophylactic G-CSF support was administered in 32% of patients and in 22% of cycles. Of 121 patients considered evaluable for efficacy, an ORR of 74% was observed (95% CI: 67-81) with 31 (26%) CR and 58 (48%) PR. Median time to progression was 10.8 months (95% CI: 9.7-12.6) and median overall survival was 18.9 months (95% CI: 14.7-TBD). All patients were evaluable for toxicity. Overall, grade 3-4 neutropenia was observed in 9% of cycles and 23% of patients. Febrile neutropenia was found in 4% of cycles and 18% of patients. The most relevant grade 3-4 non-hematological toxicity was vomiting (6% of patients), asthenia (5%) and nausea (5%).

Conclusion: The combination of epirubicin and docetaxel as first line treatment in MBC demonstrates high activity with an ORR of 74% and has a manageable toxicity profile.

118 POSTER

Sequential treatment of docetaxel plus doxorubicin/ cyclophosphamide (AC) as first-line chemotherapy for metastatic breast cancer (MBC). Final results and survival analysis of a phase II study

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Purpose: To evaluate the efficacy and toxicity profile of the administration of 3 cycles of docetaxel followed by 3 cycles of AC in patients with MBC without prior chemotherapy for metastatic disease.

Patients and Methods: Patients with histologically confirmed MBC, ECOG PS < or = 2, and adequate bone marrow, renal and hepatic function were included in this study. Adjuvant chemotherapy was allowed provided at least 6 months had elapsed before study entry. Docetaxel (100 mg/m2) was administered as an iv 60-min infusion every 3 weeks x 3 cycles, followed by A (60 mg/m2) and C (600 mg/m2) every 21 days x 3 cycles.

Results: Twenty-nine patients were enrolled with a median age of 55 years (range 38-69). The ECOG PS was 0-1 in 89% of patients. 14 patients (48%) received previous adjuvant chemotherapy. 72% of patients had 2 metastatic lesions or more. Median number of involved sites was 3 located in lymph nodes (45%), bone (28%), liver (28%), local recurrence (24%) and lung (17%). A total of 86 courses of docetaxel (median 3, range 2-3) and 81 courses of AC (median 3, range 0-3) were administered. Median relative dose intensity was 100% (range, 69-102) for docetaxel and 99% (range, 68-103) for both A and C. All patients were evaluable for toxicity. Grade III/IV hematologic toxicity per cycle after docetaxel was neutropenia (9%), leukopenia (6%), and thrombocytopenia and anemia in 1% of cycles. After AC, neutropenia (6% of cycles) and leukopenia (1% of cycles) at grade III/IV level were observed. Febrile neutropenia was observed in 1 cycle (1%) after docetaxel and in 2 cycles (3%) after AC. Grade III/IV non-hematologic toxicity per cycle consisted of asthenia (2%) and vomiting (1%) after docetaxel or AC. Efficacy: One patient was not evaluable due to sudden death after the first AC cycle (pulmonary embolism). In 28 evaluable patients, the ORR was 64% (95% CI: 46-82) after 3 cycles of docetaxel with 2 CR and 16 PR. Final ORR after 6 cycles with docetaxel plus AC was 79% (95% CI: 63-94) with 5 CR and 17 PR. Median time to progression was 12.6 months (95% CI: 9.2-15.9) and median survival was 17.1 months (95% CI: 11.4-22.8).

Conclusions: The sequential administration of 3 cycles of docetaxel plus 3 cycles of AC is a good alternative for first-line treatment of MBC with high activity (ORR: 81%) and a manageable toxicity profile.

119 POSTER

Home versus hospital treatment with Zometa (zoledronic acid) in patients with skeletal metastases secondary to breast cancer - interim analysis of hospital run-in phase

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Zometa (zoledronic acid) is a new highly potent nitrogen-containing bisphosphonate. It has been shown that Zometa 4mg via a 15 minute infusion is as effective and as well tolerated as pamidronate 90mg in the treatment of skeletal metastases in patients with breast cancer or multiple myeloma (Rosen et al. Cancer J: 2001, 7(5)).

Aim: To compare quality of life (QoL) and pain scores in breast cancer patients receiving Zometa either at home or in hospital. This trial is ongoing, with the results from the hospital run-in phase (P1) reported here.

Design: The study had two phases- P1 involved two months treatment with Zometa, and in phase two (P2), patients received Zometa for three months both at home and in hospital.

Method: Open label Zometa 4 mg was given as a 15-minute infusion every 4 weeks. The principal assessments were EORTC QLQ-C30 general QoL, a breast cancer specific QoL (EORTC QLQ-BR23), and pain score changes using the Brief Pain Inventory (BPI). Only patients whose disease was either stable or responding to treatment during P1, proceeded to P2. Patients: 55 patients with at least one bone metastasis and receiving endocrine therapy, completed P1 at data cut-off for the interim analysis (3rd Aug. 2001).

Results: 43 of the 55 patients had stable or responding disease. Global health status on the C30 QoL showed a mean 5.8% improvement over baseline during P1, which was marginally significant (P=0.0516). While emotional functioning on the C30 QoL showed an improvement (7.5%, P=0.0021) all other function scales remained stable (physical, role, cognitive, social). According to the BR23 questionnaire, significant deteriorations were reported for both breast symptoms (5.6%, P=0.0251) and arm symptoms (2.5%, P=0.0439). The BPI assessments showed that there was no change in composite score (-0.4, P=0.1502). There was a significant reduction in the worst pain experienced in the last 7 days (-0.9, P=0.0233), whereas other assessments (least pain, average pain) over this period and pain right now showed small, non-significant changes. There was a significant increase in the score for the amount of relief received from pain treatments or medications (12.5%, P=0.0273).

Conclusions: There were significant improvements in QoL and pain in breast cancer patients with skeletal metastases on endocrine therapy after two infusionsof Zometa 4mg. Phase two of the study will compare the safety and efficacy of zometa treatment in the home and hospital setting.

120 POSTER

Herceptin in single and combined treatment modalities in pretreated patients with metastatic breast cancer: the Dutch experience

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Introduction: Within an expanded Access Program (Trial ID: M77999) 58 heavily pretreated patients with metastatic breast cancer were treated with Herceptin. Herewith we present the results of a first analysis.

Patients and Treatment: Between 1 Aug. 1999 and 1 Sept. 2000, 58 patients with HER-2/neu-positive tumors were included within this open label, non-randomized study by 9 hospitals. The median age (range) was 49 years (32-78 y.). The primary tumors of these patients showed unfavorable characteristics (75% > T1, 76% N-pos, 18% M1, 81% Gr 3, 65% ER-neg). The median DFI (range) was 19 months (0-159m). The mean number of drug regimens for primary and metastatic disease together prior to Herceptin therapy was 3.9 (range 1-10); 5 patients received high-dose chemotherapy with stem cell support before. The pretreatment LVEF (n=35) was 55% (39-78%). Patients were treated with 2 mg Herceptin per kg by weekly infusion after a first dose of 4 mg/kg. Single treatment with Herceptin was given to 38 pts and combined treatment (mainly with taxanes or vinorelbine) to 20 patients.

Results: Overall a subjective response, biochemical response or objective response were observed in 59%, 58% and 38% of evaluable patients, respectively. Taken into account either an objective response or the combination of a subjective plus biochemical response as a positive response, overall 51% showed a positive response: 40% during single treatment and 71% during combined treatment. Short-term side effects occurred mainly after the first dose such as fever (39%), shivery (30%), muscle or joint pain (20%), headache (25%), and pain/complications at tumor sites (30%). A significant number of patients showed dramatic decreases of CA 15.3 plasma levels. Response durations varied between 2 to > 18 months. Updated results including survival data will be presented at the conference.

Conclusion: Herceptin treatment showed a quite high response rate with sometimes long - term responses in heavily pretreated patients with HER-2/neu-pos tumors, even after high-dose chemotherapy regimens. Most common are flulike side effects, but most striking are symptoms at the tumor sites after the first dose administration.

Acknowledgement: We thank Roche Netherlands (Mr. A. Storm) for free supply of Herceptin.

121 POSTER

A phase II trial of docetaxel (taxotere) in combination with epirubicin as neoadjuvant chemotherapy in patients with locally advanced breast cancer

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Aim: This study prospectively evaluated the efficacy and safety of the combination chemotherapy docetaxel and epirubicin in patients with locally advanced breast cancer.

Patients and Methods: Twenty-nine patients with stage IIB-IIIB breast cancer were included in the study. The median age was 54 yrs (range, 31-68 yrs), 11 pts were premenopausal and 18 postmenopausal. The median tumor size was 6cm (range, 1-24) and the axillary lymph node status was N1 in 8 pts and N2 in 6 pts. Chemotherapy consisted of epirubicin 75 mg/m2 (IV over 30 min) followed by docetaxel 75 mg/m2 (IV over one hour). Cycles were repeated every 3 weeks. Four to six cycles were administered until best response was achieved on clinical assessment and mammography. Pts who developed neutropenic fever received subsequent cycles with GCSF.

Results: All pts were evaluable for response and all underwent surgery following chemotherapy. The overall objective response rate was 96% with complete response to chemotherapy achieved in 3 pts (10%)and partial response in 25 (86%). Surgery included mastectomy in 16 pts (55%) and conservative surgery 13 pts (45%). The median pathological tumor diameter was 3 cm (range 0.2-15). One patient achieved complete pathological response. The post surgical lymph node status was NO in 8 pts, N+ (1-3) in 6 pts and N+ (>4) in 15 pts. Neutropenia was the most common toxicity. Nine pts (31%) were hospitalized due to neutropenic fever and 4 pts required dose reduction due to neutropenia. Other grade 3/4 toxicities were diarrhea 6 pts (20%)stomatitis 2 pts (9%) and allergy 1 pt (3%).

Conclusion: Neoadjuvant treatment of locally advanced breast cancer with docetaxel and epirubicin is safe and effective and results in a high rate of breast conserving surgery.

122 POSTER

Radiotherapy for bone metastases of breast cancer: radiation doses and bone marrow recovery

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Purpose: Upper limit of bone marrow (BM) radiation dose permitted early haematopoietic recovery is not well documented. We evaluate the problem because this data must be important for planning of both regional and systemic radiation therapy for bone metastases of breast cancer.

Material: Haematopoietic activity in 633 irradiated bone areas was evaluated by BM scintigraphy (BMS) which was performed 0.1-115 months after the end of standard fractional radiotherapy (RT). Radiation doses absorbed by BM ranged between 10Gy and 45Gy. BMS started 1 hr after i/v injection of 8-10 MBq/kg of 99mTc-colloids. Haematopoietic activity of irradiated BM was evaluated semiquantitavely: grades I-II - absence or markedly diminished activity, grades III-IV- partial or full regeneration.

Results: In any time (1-64 weeks) after BM irradiation within 10-20 Gy scintigraphic data indicated active haematopoiesis in the projection of radiation fields: images of grades III & IV were detected in 48 of 60 (80%) regions. On the contrary, during first 24 weeks after BM irradiation within 21-45Gy we revealed prominent depression (grades I-II) of haematopoietic activity in 156 of 185 (84.3%) regions. In this areas BM regeneration started only 6 months after the end of radiotherapy and it's rates were dose-dependant: scintigraphic patterns of BM regeneration (grades III-IV) were mentioned in 79 of 108 (73.1%) regions irradiated within 21-30Gy and only in 113of 280 (40.3%) - within 31-45Gy ($p<0.05$).

Conclusion: Early BM recovery can be expected in 80% of bone regions irradiated with doses under 10-20 Gy.

123 POSTER

A multicentric phase II study with vinorelbine and protracted fluorouracil infusion for advanced breast cancer patients previously treated with anthracyclines and/or taxanes. Is salvage chemotherapy for metastatic breast cancer always effective and well tolerated?

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Background: Vinorelbine is an active drug in the treatment of metastatic breast cancer and has a favorable toxicity profile.The protracted continuous infusion of 5-fluorouracil has proven in several studies an active and well tolerated treatment for advanced pretreated breast cancer. We investigated the efficacy and the feasibility of this combination in advanced breast cancer patients.

Patients and Methods: Twenty-six patients, median age 56 years (range 39-68 years), M/F: 1/25, PS ECOG 0-2, experienced treatment failure or relapse after anthracycline-taxanes based were entered in the study. Treatment consisted of 5-FU 200 mg/mq given as a protracted continuous infusion by an elastomeric pump and vinorelbine 25 mg/mq on days 1 and 5, every 3 weeks. The median number of metastatic tumour sites was 2, with visceral involvement in 23 patients. Nineteen patients (73%) received endocrine therapy in adjuvant setting or for advanced disease, and thirteen (50%) patients received radiation therapy.

Results: All patients are evaluable for toxicity. Chemotherapy was infused intravenously for a total number of 112 cycles. We observed WHO grade III/IV neutropenia in 12 patients (46%), grade III anaemia in 1 patient, grade IV thrombocytopenia in 1 patient; grade I-II nausea/vomiting occurred in 9 patients (34%), grade III diarrhea in 1 case and grade IV stomatitis in 1 patient. Grade II-III neurologic toxicity was observed in 3 cases (11.5%), and grade II-III hand-foot syndrome was observed in three patients (11.5%).Alopecia was moderate and occurred in about one-third the patients. Two patients obtained an important clinical benefit with decrease of analgesic drugs use and decrease of lymphedema. After 3 cycles, 23 patients are evaluable for response: objective responses (OR) were observed in 16 of 23 patients (69.5%); there were 4 PR, 1 MR and 11 SD; seven patients (30.5%) experienced disease progression (PD). After 6 cycles, fifteen patients are evaluable for response: 6 patients obtained objective responses (OR:40%), 3 PR and 3 SD; 9 patients progressed (PD:60%); eight patients are still in treatment.

Conclusions: The combination of vinorelbine with protracted continuous infusion of 5-FU is an active and tollerable regimen for the treatment of second-third metastatic progression of breast cancer, yet the efficacy and the moderate toxicity of this schedule might be partially due to the selection of patients.

124 POSTER

The strontium-89 chloride repeated injections and their efficacy in patients with bone metastases

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The efficacy of strontium-89 was validated in the palliation of pain syndrome in cancer patients with bone metastases. Nowadays there is no enough data if the strontium-89 cumulating effect exists and if it is positive for pain relief.

From 11.1997 to 09.2001 we enrolled 104 patients with bone metastases who received treatment with strontium-89. Most patients had breast(64), prostate (30)and other tumors (10). They have been treated with traditional methods of therapy and analgesic pharmacotherapy as needed. Systemic radiotherapy was carried out once to 68 patients, twice- to 21, three times- to 12, four times - to 1 and five times - to 2 patients. The efficacy of the treatment was valued on the criteria as follows: pain decrement and changing in metastatic sites determined by X-ray examination, CT-scan, MRI.

Pain decrement was noted in 89,4% of patients after the 1st injection with average duration about 4,7 months. The 2nd and the 3rd injections facilitated development of pain relief in 88,9% and 86,7% of patients accordingly not lengthening its duration. However, the full analgesic effect was observed in the most of patients (61,1% and 60,0% correspondingly versus 43,3% after the 1st injection) despite the fact that in 40% of cases the further progression of metastatic process was registered. Evaluating the objective effect we noticed that the best results (complete and partial reparation of metastatic sites and the stabilization of the process) were seen in groups of those patients who has undergone locoregional radiotherapy in addition to the systemic one.

After the 4th and the 5th injections the approach of pain decrement occurred faster: patients were able to reject drugs on the second day after injection (before this they took drugs 3 times per day).

We noticed that the conduction of the repeated systemic radiotherapy is more reasonable for those patients who revealed the positive analgesic (and preferably local objective) effect from the previous injection and before 2 months after pain syndrome reappearence.

The reduction of initial level of leukocytes and trombocytes was seen in 2/3 of patients after the 1st injection and in all patients after repeated ones.

Thus, repeated strontium-89 chloride injections combined with traditional methods of specific therapy ensure complete pain relieve in the largest part of the patients with bone metastases and also contribute to activation of reparative process in metastatic sites.

125 POSTER

Analysis of clinical symptoms and prognostic factors in breast cancer-related meningeal metastases

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Purpose: Meningitis carcinomatosa (MC) is an uncommon but aggressive complication of advanced breast cancer with increasing incidence, recently. MC occurs in 1 to 5% of patients (pts) with breast cancer. The prognosis in MC is extremely poor.

Patients and Methods: We reviewed 20 cases of MC caused by breast cancer at our clinic from January 2000 to July 2001. The neurological symptoms, pre-treatment characteristics and the methods of MC treatment were analysed. The treatment consisted of intrathecal injection of 10 mg of methotrexate plus dexamethasone 4 mg, administered weekly (except one women because of withdrawal of patient consent). 15 pts (75%) received systemic chemotherapy in parallel with intrathecal treatment and 2 pts (10%) - systemic hormonal treatment. The whole brain radiotherapy was performed additionally in fourteen (70%) pts.

Results: The mean age at the time of diagnosis of MC was 45 years (range 29-70) and the median Karnofsky status was 50% (range 40-80%). The mean interval from breast cancer diagnosis was 26 months (range from

1 to 84 months). In twelve pts (60%) previous radical treatment of breast cancer was performed. Thirteen (65%) women were previously treated with systemic chemotherapy as well as metastatic setting. Only two pts were HR positive (10%). Other metastatic sites were associated with MC in fourteen (70%) pts. The clinical symptoms at the time of diagnosis were headache (85%), nausea/vomiting (40%), confusion (30%), cerebellar signs (25%), paresis (25%) and pain in the thoraco-lumbal region (10%). Cancer cells in cerebrospinal fluid were detected in 100% of cases.Cerebrospinal fluid protein level was elevated in 70% of cases.

The mean of intrathecal treatment cycles was 6, (range 0-15 cycles).

The response was defined as clinical and laboratory improvement and was achieved in fourteen pts (70%). The median duration of survival was 112 days. Eight pts (40%) survived beyond 6 months (only those who received systemic chemotherapy).

Conclusion: Our observation suggests, how important prognostics factors in MC are: systemic chemotherapy, Karnofsky status at time the diagnosis of MC and the clinical response (reduction of headache and other symptoms) after the first 2-3 cycles of inthratecal infusion of methotrexate. The number of analysed pts was low and we didn't observed statistical relevance in multivariate analysis.

126 POSTER

Leukopenia following primary chemotherapy as a predictor of response in locally advanced breast cancer

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Introduction: The correlation between chemotherapy-induced toxicity and treatment outcome in cancer patients has not been thoroughly studied. Our aim was to evaluate whether leukopenia following primary chemotherapy may be predictive for response in patients with locally advanced breast cancer.

Material and Methods: Data derived from the records of 164 breast cancer patients managed with primary chemotherapy between 1985 and 1995 were recorded. Most of the patients presented with locally advanced disease, however included were also patients with large operable tumours. All patients had pathological confirmation of malignancy, most frequently by fine needle biopsy Chemotherapy included one of the three combinations: modified Cooper regimen (CMFVP); 31 patients (19%), CMF; 118 patients (71%) and anthracycline-based regimens (FAC or FEC); 16 patients (10%). Chemotherapy was delayed if, on the day of therapy, there was a leukopenia of < 3.0 WBC/L. Occasionally dose reduction was necessary due to delayed leukopenia. No colony-stimulating growth factors were used. All patients were subsequently subjected to locoregional treatment.

Results: The objective response rate in the entire group was 58%; 75% in patients who developed grade 2-3 leukopenia during induction chemotherapy, and 52% in those who had no or grade 1 leukopenia ($p<0.01$, multivariate analysis). No patient- or treatment-related factor including age, performance status, T stage, N stage, supraclavicular lymph node involvement, inflammatory carcinoma or chemotherapy regimen correlated with response to chemotherapy. Higher response rate in patients who developed leukopenia was not translated into prolonged overall survival (medians: 59 and 51 months, respectively).

Conclusions: These findings suggest a relationship between chemotherapy-induced leukopenia and tumour response in patients with locally advanced breast cancer.

127 POSTER

Induction chemotherapy followed by breast conserving treatment for locally advanced breast cancer

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Background: Primary conservative treatment for early stage breast cancer has been shown to result in survival rates comparable to those achieved with radical mastectomy. However, modified radical mastectomy remains the routine surgical treatment for larger tumors. To avoid this mutilating surgery, neo-adjuvant chemotherapy protocol was introduced in our Center as a part of multidisciplinary approach for locally advanced disease, followed by breast conserving treatment (BCT). The purpose of this study was to evaluate the feasibility and early results of this strategy.

Material and Methods: Twenty one breast cancer patients in stage II or III of the disease were included from April 1997 till December 2000. Mean age was 43 years (range 25 to 56). Primary tumor was measured and tattooed prior to biopsy (FNAC or CB). Preoperative chemotherapy was given according to AC regimen (4 cycles) to 13 patients (63%), CMFVP (6-8 cycles) to 3 patiemts (13%) or sequential AT-CMF - to the remaining 5 (23%). Complete clinical examination and mammography re-assessment was performed prior to surgery.

Results: The overall response rate to induction chemotherapy was 90% (19 out of 21) with 38% complete tumor regression. BCT was feasible in 19 patients (90%) but was finally performed in 16 women; the remaining 5 had mastectomy. One metastatic relapse was observed in the median 1-year follow up.

Conclusion: The above preliminary results suggest that induction chemotherapy followed by BCT is feasible and can be and alternative to mastectomy for patients with locally advanced breast cancer, who are responders to neo-adjuvant treatment. However, the impact of this treatment modality on long term survival remains to be established. The microscopic findings in specimens are also of interest, as complete pathological remission was observed in 38% of cases.

128 POSTER

Factors determining late sequelae and risk of contralateral breast carcinoma in patients (pts) with locally advanced breast cancer (LABC) managed with radiotherapy (RT) as the primary locoregional treatment

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Introduction: The aim of this study was to evaluate retrospectively factors determining late sequelae and risk of contralateral breast carcinoma in a large series of consecutive LABC pts managed with RT as the primary locoregional treatment.

Material and Methods: The records of 261 primarily inoperable LABC pts treated between 1991 and 1997 at two institutions: Medical University of Gdansk, Poland and Velindre NHS Trust, Cardiff, UK were analysed. All pts received megavoltage RT to the breast with two tangential fields, whereas the adjacent lymph node areas were irradiated using customised fields. Due to a large scale of RT doses and fractionation schedules, normalised total dose (NTD) was calculated for all pts using a linear quadratic model. In 241 pts RT constituted the only local treatment. Most pts received chemotherapy and/or endocrine therapy prior or after RT. Sequelae were assessed according to their clinical severity and necessary management. Moderate sequelae were clinically apparent but interfered minimally with normal activities. Severe sequelae interfered markedly with normal function or required surgical treatment or were fatal.

Results: Within the median follow-up of 37 months, locoregional recurrence occurred in 95 of 251 evaluable pts (38%). Three-year and five-year locoregional-free survival rates were 59% and 48%, respectively. Thirty nine pts (16%) experienced moderate or severe late radiation sequeale. Arm oedema occurred in 8.0% of pts, brachial plexus injury - in 3.6%, teleangiectasia - in 3.6%, symptomatic radiation pneumonitis - in 0.8%; cardiomyopathy - in 0.4% and oseoradionecrosis - in 0.4%. Multivariate analysis showed that radical mastectomy performed after RT was associated with the increased risk of arm oedema ($p<0.01$; OR=5.0), whereas neoadjuvant chemotherapy - reduced risk of subsequent teleangiectasia ($p<0.01$; OR=0.4). During the follow-up period secondary carcinoma developed in 30 pts (12.0%), of whom in 26 (10%) the tumour was localised in the opposite breast. At multivariate analysis of variables predicting the risk of carcinoma in the opposite breast, loco-regional recurrence of the primary tumour ($p<0.01$; OR=4.03) was the most important predicting factor.

Conclusions: The modern RT techniques allow achieving a 5-year locoregional control in a half of LABC pts, with an acceptable risk of late sequelae. Judicious therapy tailoring may result in the improvement of therapeutic index.

129 POSTER

Effect of the intensiveness of inductive therapy on the response and on 5-year survival in patients with advanced (stage III) breast cancer receiving neo-adjuvant CMFVp chemotherapy

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The aim of this study was to evaluate the potential influence of the intensiveness of inductive chemotherapy on the therapeutic response and survival in patients with advanced breast cancer receiving neo-adjuvant CMFVp prior to surgery.

In years 1995-96, 34 patients with advanced (stage IIIA and IIIB) breast cancer received induction chemotherapy according to CMFVp regimen. The intensiveness of chemotherapy was assessed as percentage of full 9 courses given in appropriate time and doses. Clinical and mammographic response was evaluated as CR, PR, NC or PD in two groups of patients: A/ lower intensity: those receiving up to 80% of full chemotherapy (18 patients), and B/ higher intensity: those receiving 81-100% of full chemotherapy (16 patients).

Clinical response assessed as CR+PR in group A/ was 6/18 (33%), and assessed as NC+PD was 12/18 (67%). Mammographical response in this group, assessed as CR+PR was 7/18 (39%), and as NC+PD was 11/18 (61%). In group B/ clinical CR+PR was 14/16 (88%), and NC+PD was 2/16 (12%), while mammographical CR+PR was 12/16 (75%), and NC+PD was 4/16 (25%). Five years survived 9/18 (50%) patients in group A/ and 15/16 (94%) in group B/.

Our initial results show that the therapeutic response was better in group receiving higher intensuty induction chemotherapy. The difference in 5-year survival between both groups is striking, but should be addressed with caution and requires further evaluation on much larger group of patients.

130 POSTER

Gemcitabine (G) plus cisplatin (C) is a highly active regimen in first-line treatment of metastatic breast cancer (MBC): Results of a multicenter phase II trial

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Background: Breast cancer is a common female malignancy with a high metastatic potential. Both G and C are active against MBC. These two agents have different mechanisms of action, with evidence of synergism when combined. Given the efficacy of the G/C combination seen in second-line chemotherapy of MBC, we performed an evaluation of this regimen in the first-line setting.

Objectives: The primary study objective was response rate (RR). Secondary objectives included time to progression (TTP), survival, and toxicity.

Methods: Patients (pts) with MBC, without prior systemic chemotherapy for metastatic disease, with bidimensionally measurable lesions, and a performance status (ECOG) of 0-2 were treated with G 1200 mg/m2 d 1, 8 and C 75 mg/m2 d1, every 21 days up to 6 cycles, or until the occurrence of disease progression or unacceptable toxicity.

Results: A total of 46 pts were enrolled with a median age of 49 years (range 24-77). A total of 236 cycles were administered (a median of 6 cycles per patient; range 2-6). Of the 42 pts evaluable for response, 7 (17%) achieved a complete response and 27 (64%) a partial response, for an overall RR of 81%. There were 17/17 responses in the primary tumor, 7/7 in the lung, 1/1 in the bone, 4/7 in the liver, and 24/29 in soft tissue. Median TTP was 10.4 mos (95% CI 0.2-20.6 mos). Median survival has not been reached. At the time of the analysis, 29 (69%) pts were alive, and 21 (50%) have progressed. Grade 3/4 toxicity included neutropenia (36% of pts), anemia (9%), thrombocytopenia (9%), alopecia (27%), and nausea and vomiting (32%). There was no grade 3/4 neurotoxicity, ototoxicity, nephrotoxicity, or treatment-related deaths.

Conclusions: G plus C is a highly active first-line chemotherapy regimen in MBC, with a mild toxicity profile. However, more follow-up is needed to better define overall survival and TTP. This study confirms the high activity seen with the G/C combination in MBC. (Supported by Eli Lilly y Cia. S.A. de C.V. Mexico.)

131 POSTER

Poorer survival of patients in UK and Russia in an international randomised trial of chemotherapy for metastatic breast cancer

R. Leonard, K. Malinovszky. *South West Wales Cancer Institute, Singleton Hospitals, Swansea, United Kingdom*

In the last 4 years 2 international randomised trials of chemotherapy have shown that effective chemotherapy may influence beneficially the survival of patients with advanced breast cancer. These observations refute a widely held belief that chemotherapy serves only to palliate metastatic disease. Another recent international phase III trial investigated the efficacy and tolerability of capecitabine/docetaxel combination therapy vs single-agent docetaxel in anthracycline-pretreated patients with MBC. 511 patients with MBC were randomized to 21-day treatment cycles of either oral capecitabine 1,250 mg/m2 twice daily, days 1-14, plus docetaxel 75 mg/m2 day 1 (n=255), or single-agent docetaxel 100 mg/m2 day 1 (n=256). After a minimum follow-up of 15 months, the combination regimen resulted in significantly superior efficacy, including time to disease progression (TTP, hazard ratio =.652, P=.0001, median 6.1 v 4.2 months), overall survival (hazard ratio =.775, P=.0126, median 14.5 v 11.5 months), and objective tumor response rate (42% v 30%, P=.006) compared with single-agent docetaxel. A multivariate analysis of prognostic factors for survival identified 6 independent factors retaining significance comprising: - treatment regimen; the biological factors ER status, performance status, number of metastatic sites, liver involvement; and finally country of origin with UK and Russia being unfavourable factors. An analysis was conducted to compare these patients against those of the 'best' country, Taiwan and against a reference group which included the USA. Exploration of the 'country' factors failed to clearly identify race, distribution of unfavourable biological characteristics, prior use of chemotherapy or delay in the use of trial chemotherapy in the natural history of the disease as reasons. Compared to Taiwan fewer Russian but more UK patients had trial treatment as 1st line therapy for metastatic disease. Post trial only 19% of UK and 8% of Russian patients were treated with 2 or more further chemotherapy regimens, compared to almost 30% in the reference group and 32% of patients in Taiwan. The design was powered to observe a treatment effect. These observations are therefore a possible chance statistical effect; alternatively, since the trial therapy was a constant effect in favour of Xeloda/docetaxel in all countries, it is possible that less intervention with chemotherapy post- trial could explain the observations.

132 POSTER

Weekly taxol treatment as a second or third line therapy in patients with metastatic breast cancer

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A forty-eight breast cancer patients who had chemotherapy before for meatstatic breast cancer (MBC) were enrolled into the study. Median age was 49 (range: 28–71). 19 of them were premenopausal, 29 were postmenopausal. Taxol (Paclitaxel) was administered in a dose of 80 mg/m2/week in one hour infusion. Premedication consisted of dexamethasone 16 mg IV, diphenylhydramine 50 mg IV, H2 blocker 50 mg IV, 30 minutes before the administration of Taxol. Dose of dexamethasone was decreased in half every week if there was no hypersensitivity reactions observed and stopped at the end of fourth week. Median cycles of weekly chemotherapy were 19 cycles and total median dose was 1800 mg (range: 520–4680 mg). Six (12.5%) patients had complete response (CR) and 18 (37.5%) patients had partial response (PR) and total response rate was 50%. Five patients had stable diasease and progressive disease was observed in 19 (39.6%) patients. Total response rate was 53.2% in patients who had Taxol treatment before, 45% in patients who did not receive Taxol before for MBC. This difference was statistically insignificant. Total response rate was 29.1% in patients who had weekly Taxol as second line treatment, 20.8% in patients who had weekly Taxol as a third line treatment. Median remission duration was 6 month (range: 2–9 month). Most frequent side effects were alopecia (72.1%), nausea-vomitting (29.1%), leukopenia (33.3%), peripheral neuropathy (14.5%), diarrhea 10.4%), mucositis (8.3%). Hypotension and edema were observed in 1 and 2 patients respectively. Weekly Taxol

treatment in patients who had chemotherapy before for MBC was highly tolerated regimen with good clinical activity.

133 POSTER

Concurrent bisphosphonate with radionuclide for treatment of osseous metastases in breast cancer

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Introduction: The development of osseous metastases is a frequent event in patients with carcinoma of the breast. Radionuclide therapy and bisphosphonates are widely accepted treatments for metastatic breast cancer. Bisphosphonates are thought to target osteoblastic activity and are favored for sites of lytic metastases. Conversely, radionuclides have been demonstrated to be effective in treating blastic lesions. The majority of breast cancer patients with bony metastases exhibit both lytic and blastic changes. The use of concurrent bisphosphonate with radionuclide therapy was evaluated in a pilot study to assess tolerance and efficacy of this combination.

Material/Methods: Eighteen patients with metastatic cancer of the breast with evidence of bony metastases were retrospectively reviewed to evaluate the efficacy and tolerability of combination of bisphosphonate, pamidronate, and the radionuclide samarium-153. Pamidronate was administered monthly by intravenous infusion over 2 to 3 hours at a dose of 90 mg. Samarium was administered at a dose of 1 mg/kg in all but two patients with extensive bone lesions (0.05 mg/kg).

Results: Eighteen patients with metastatic breast cancer received pamidronate (90 mg q 4 weeks) for painful bone metastases. Sixteen patients received 1 millicurie/kg samarium-153 (two received 0.5 miCi/kg). Seventeen patients received prior spot irradiation to sites of bone pain. Fourteen of seventeen had received prior chemotherapy, and none were treated with systemic chemotherapy within a month of Samarium administration. Blood count nadirs occurred at mean 25 days (range 13-30). Pre-Samarium blood counts were >2 K WBC and >100 K platelet in all but one patient (plt 71K, WBC 4.7). Four of eighteen patients had platelet nadirs less than 100 K (98, 77, 29, and 10) and three developed WBC nadirs less than 2 K (1.8, 1.6, 1.7) with none less than 1.5K. At one-month follow up, 16/18 patients reported a good response to treatment. Three of four non-responders received subsequent spot irradiation at 2 weeks, 1 month, and 2 months post injection. Two of sixteen responders required further local radiotherapy during the 3 months post-samarium treatment.

Conclusion: Concurrent bisphosphonate and radionuclide therapy is safe and feasible. The hematologic effects are acceptable. The combination of bisphosphonates and systemic radionuclide appears promising and should be further investigated.

134 POSTER

Neoadjuvant chemotherapy for stage III breast cancer: does the addition of paclitaxel to doxorubicin increase complete response. A single institution non randomized study

A. Alvarez[1], J. Rodger[1], C. Brosio[1], G. Cinat[1], R. Giglio[1], S. Carnaval[1], C. Cresta Morgado[2], C. Noblia[2], C. Delfino[3], E. Mickiewicz[1]. [1] *Angel HRoffo Institute, Medical Oncology, Buenos Aires, Argentina;* [2] *Angel HRoffo Institute, Breast Surgery, Buenos Aires, Argentina;* [3] *Hospital de la Comunidad, Medical Oncology, Mar del Plata, Argentina*

Since 1989, anthracycline based neoadjuvant chemotherapy is the standard treatment for stage III breast cancer (at the Instituto Roffo), followed by surgery plus radiotherapy if indicated (ASCO 1995: Abs.203;1997: Abs.548; 2000: Abs.2626).When possible, paclitaxel was added to this treatment in order to increase pathologic complete response(pCR). We obtained 60% Clinical responses with low pCR. which seem to improve disease free survival.Therefore, it's important to find more effective therapies to increase pCR.

Objective: Analyze the outcome in terms of response of patients treated with and without paclitaxel in the neoadjuvant chemotherapy.

Material and Methods: 170 charts of stage III breast cancer were analized.142 received Doxorubicin 50 mg/m2 plus Cyclophosphamide 600 mg/m2 day 1 every 21 days for 3 cycles(Group A),and to 28 patients Paclitaxel 60 mg/m2 days 1,8,15,21,35 and 42 was added to this schedule(Group B).This weekly schedule was used in this neoadjuvant setting because of its lower toxicity profile.After chemotherapy, patients had surgery(plus radiotherapy if indicated), and completed treatment with adyuvant chemotherapy and Tamoxifen if estrogen receptors were positive.Even though the number of patients in both groups is different,age, menopausal status, stages(IIIA and IIIB), hormone receptors, P53 and Her2neu are evenly distributed with no statistical difference between them.

Results: 1 patient in Group A and 3 in Group B weren't operated for different reasons.In Group A: 87/142 patients (62%) had clinical responses, 76 (53%) partial responses (PR) and 11(7,8%) complete responses (CR).Fifty four (38%)patients had stable disease(SD).In Grupo B 27/28 patients(96%) responded, with 24(85%) PR and 3 (10%) CR. One patient had SD.These differences were statistically significant, p = 0.0043 (Pearson Chi-square).There were 7 (4.9%) pCR in Group A, and 2 (8%)in Group B. This difference was also statistically significant, p=0.00004 (Pearson Chi-square).

Upto now, no statistical differences have been seen in overal survival. Toxicities were in general similar except for more peripheral neuropathy grade 1-2 in Group B.

Conclusion: 1.In this group of patients clinical response(62% vs. 96%) and pCR rates (4.9% vs. 8%) favoured in the doxorubicin plus paclitaxel group

2- Toxicities were in general similar except for more peripheral neuropathy grade 1-2 in Group B.3This preliminary results should be confirmed in a randomized study

135 POSTER

Phase II study of weekly paclitaxel for docetaxel-resistant or -inapplicable metastatic breast cancer: preliminary results

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Introduction: This study was conducted in order to investigate the efficacy and toxicity of weekly paclitaxel in patients with docetaxel-resistant or - inapplicable metastatic breast cancer.

Patients and Methods: Thirty-five women who were previously treated with docetaxel have been enrolled onto this study. Many of them were also treated with anthracycline containing regimen. Thirty- four patients were assessable for efficacy and toxicity. Patients have been treated with a 1-hour infusion of paclitaxel at 80 mg/m2 weekly for three consecutive weeks followed by one week rest with short premedication.

Results: No patient showed complete response whereas 7 patients had partial responses, which accounted for 21% of objective response rate. In addition, 13 patients (38%) had stable disease over 6 months. In total, weekly paclitaxel achieved 59% of clinical benefit in this heavily pretreated population. Clinical responses were achieved at a median of 2.5 cycles (range 1- 4 cycles). Patients received a median of 3 cycles (range, 1-14) with a median dose intensity of 60mg/m2/week (range, 20-60). The regimen was generally well tolerated. Twenty-three percent of patients experienced neutropenia ≥G3 and there was no febrile neutropenia. There was no ≥G3 non-hematological toxicity including myalgia.

Conclusion: Weekly paclitaxel had moderate activity and was feasible as a salvage therapy in this clinical setting.

136 POSTER

Preliminary results of multicenter phase II study of docetaxel and 5'-deoxy-5-fluorouridine, an intermediate form of capecitabine, for pretreated metastatic breast cancer.

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Introduction: Docetaxel and oral 5'-Deoxy-5-Fluorouridine (5'-DFUR), an intermediate form of capecitabine, can be considered as active drugs for metastatic breast cancer (MBC) and we have shown the combination of docetaxel (day 8) and 5'-DFUR (day 1-14) of a 21-day treatment cycle was feasible in clinical phase I study, the study was based on pre-clinical data which we presented at the SABCS in 2000.

Aims: To determine activity of the combination therapy with docetaxel and 5'-DFUR in MBC patients (pts) by assessing response rate (RR), survival and safety.

Patients and Methods: Between January 2000 and June 2001, 30 pts were enrolled onto this study, and 29 pts were eligible. The median age of pts was 54.0 years (36-72). Baseline performance status was ECOG 0: 26 pts, 1: 3 pts. Only 3 pts had previously untreated. Metastatic sites were

lymph node: 11 pts, liver: 10 pts, lung: 8 pts, bone: 6 pts, skin: 6 pts, renal: 1 pt.

Pts received docetaxel 60 mg/m2 IV day 8 and 5'-DFUR 800 mg PO day 1-14 of a 21-day treatment cycle.

Results: To date, 29 pts who received at least two cycles of this treatment have been evaluable for efficacy and safety. Overall RR was 51.7% (15/29) with 5 CR, 10 PR, 8 NC, 6 PD. NCI-CTC grade 3-4 toxicities were leukopenia 62.1% (18/29), neutropenia 69.0% (20/29), and skin toxicity 3.4% (1/29).

Conclusion: The combination of docetaxel and 5'-DFUR was a well-tolerated and very active regimen for the treatment of MBC with good QOL. This study is still ongoing and preliminary results will be presented.

137 POSTER

Salvage capecitabine-leucovorine-vinorelbine combination chemotherapy in both anthracycline and taxane resistant metastatic breast cancer

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Background and Purpose: Patients experiencing both anthracycline and taxane resistance present the subgroup of metastatic breast cancer (MBC) pts with the poorest prognosis. The impact of salvage chemotherapy (CT) on survival in this setting is minimal, and primary goal remains palliation. The aim of this phase II study is to assess the safety and activity of capecitabine-leucovorine-vinorelbine (CAPE-LV-VNR) combination in pts with clinical resistance both to anthracycline-based and taxane-based CT.

Patients and Methods: This preliminary analysis presents data on 18 pts, median aged 47. All pts have experienced anthracycline resistance (primary resistance in 12 pts) and in the next CT line taxane resistance (primary resistance in 10 pts). Average number of prior cytotoxic agents was 6,3 and CT regimens 2,8. Three-week schedule treatment consisted of capecitabine 1650 mg/m2 p.o. on days 1-14, one week rest, plus leucovorine 200 mg/m2 i.v. (twice daily) on days 1 and 8 plus vinorelbine 30 mg/m2 i.v. on day 15. Common WHO and NCIC criteria were used for response evaluation and toxicity.

Results: A total of 93 cycles was given, with median of 4/pt (range 2-12). Subjective improvement in tumor-related symptoms was reported by all responding pts and in 3/4 pts with no change. The response rate was 22,2% (95 CI 16%-30%), all 4/18 pts PR, with median response duration 4,5 months (range 3-8,5) and median TTP 6,5+ months (range 4-9,5+). The median survival has not been reached yet (5 pts alive, range 6±18+ months). Grade 3/4 neutropenia occurred in 4 pts, with no toxic deaths. Non-hematologic toxicity was usually mild: hand-foot sy gr 2 in 5 pts, mucositis gr 2 in one pt, neuropathy gr 1 in 4 pts, nausea gr 1 in one pt and diarrhea gr 1 in one pt.

Conclusion: CAPE-LV-VNR combination appears to be active with a tolerable safety profile in heavily pretreated MBC pts, both anthracycline and taxane resistant. It seems to be a reasonable choice as an alternative salvage regimen, especially in terms of good symptom control in such cases.

138 POSTER

Gemcitabine in metastatic breast cancer patients previously treated with anthracyclines and taxanes. Evaluation of response toxicity

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Introduction: Chemotherapy provides significant benefits in metastatic breast cancer patients, but recurrences remain a major problem after successful application of anthracyclines and taxanes. Gemcitabine is a pyrimide nucleoside antimetabolite which has activity in a range of solid tumors with mild toxicity profile.

Objectives: To evaluate gemcitabine (response and toxicity)in pretreated patients (anthracyclines and taxanes) with metastatic breast cancer.

Materials and Methods: Between 1998 and 2000, 19 women aged 39 to 66 years (median age: 53)with metastatic breast cancer previously treated with anthracyclines and taxanes received 81 cycles (median: 4 per patients; range: 2 - 6 cycles) of chemotherapy with gemcitabine 1000 mg/m2 on days 1, 8 and 15 every 28 days. All patients were evaluated.

Results: Complete response, 0; partial response, 8 (42%); stable disease, 5 (27%); progressive disease, 6 (31%).

Toxicity: Cutaneus G 1: 2 p. (10.5%); alopecia G 1: 8 p. (42.1%); nausea G 1: 4 p. (21%); anemia G 1 and 2: 4 p. (21%); neutopenia G 1: 11 p. (57.8%), G 2: 3 p. (15.7%), G 3: 1 p. (5.2%); thrombocytopenia G 1: 4 p. (21.5%), G 2: 2 p. (10.5%), G 3: 3 p. (15.7 %).

Conclusion: Gemcitabine 1000 mg/m2 on days 1, 8 and 15 every 28 days has significant activity in metastatic breast cancer patients previously treated with anthracyclines and taxanes, and has a manageable toxicity profile.

139 POSTER

Clinical experiences with MR-guided microwave coagulation therapy for metastatic liver tumors from breast cancer

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Purpose: Liver metastasis from breast cancer are associated with a poor prognosis, however, local control of microwave coagulation therapy (MCT) has been used in certain subgroups of these patients for recent decade. Few study reports MCT under near real-time magnetic resonance (MR) guidance. In this study, open-configuration MR-guided MCT was used for metastatic liver tumors from breast cancer, and the efficacy of this treatment was assessed.

Methods: In 6 patients, a MR-compatible electrode (250 mm long and 1.6 mm thick) was introduced into the liver through a MR-compatible 14 G needle via a percutaneous puncture under real-time MR guidance. MCT at 60 W for 60 seconds were repeated several times depending on the tumor size. All MR data were collected on a 0.5 T SIGNA SP/i system. Near real-time MR images for fluoroscopy and for temperature mapping were collected using a spoiled gradient echo (SPGR) sequence. In two patient, thoracoscope-assisted MR-guided MCT was performed.

Results: No serious side effects or complications were encountered during or after the MR-guided MCT. The effects of ablation were evaluated with T1-weighted MR image or dynamic MR images. MCT caused tissue coagulation of 18 mm diameter and 30 mm in length. Liver tumors of the 4 patients were radically ablated under real-time temperature mapping. Although the follow-up period was short (10-16 months), 5 patients survived.

Conclusion: MR-guided MCT is a safe and effective tumor ablation therapy for metastatic liver tumors from breast cancer.

140 POSTER

Long term survival in metastatic breast cancer (MBC): a retrospective analysis of 29 patients (pts)

E. Senkus-Konefka[1], B. Radecka[2], Z. Ilnicka[3], H. Symonowicz[4], A. Kobierska[1], M. Welnicka-Jaskiewicz[1], L. Krasinska[1], J. Jassem[1]. [1] *Medical University of Gdansk, Oncology and Radiotherapy, Gdansk, Poland;* [2] *Regional Oncology Centre, Opole, Poland;* [3] *Rzeszow Oncology Centre, Rzeszow, Poland;* [4] *Regional Outpatient Oncology Department, Koszalin, Poland*

Objective: To analyze retrospectively clinical characteristics of MBC pts surviving >5 years.

Material and Methods: A search through databases of 4 institutions was performed. A retrospective analysis of patient-, tumor- and treatment-related factors was conducted.

Results: 29 pts (28 female and 1 male, aged 30 - 68 /median 47/, 18 (62%) premenopausal) were identified. 4 pts (14%) had metastatic disease (lung, skin, ovary, contralateral axilla) already at presentation, 3 (10%) had stage I, 15 (52%)- stage II, 3 (10%)-stage III and 4 (14%) presented with operable N0 tumors of unknown size. 25 pts (86%) had pathological diagnosis of ductal carcinoma (Ca), 2 (7%) - lobular Ca, 1 (3%) - gelatinous Ca and 1 (3%) - mucinous Ca. 25 pts (86%) underwent mastectomy, followed by postoperative RT in 4 pts (14%), adjuvant chemotherapy (ChT) in 15 pts (52%) and adjuvant tamoxifen (Tam) in 9 pts (31%). 1 patient (3%) was treated with radical radiotherapy (RT), 1 (3%) -palliative breast RT, 3 (10%) - palliative ChT, 2 (7%) - palliative Tam and 1 (3%) - with other hormonal agents. 7 pts (24%) had locoregional recurrence (6 synchronously with metastatic spread). The time-span between first diagnosis and dissemination ranged from 0 to 186 months (median 28). 13 pts (45%) had bone metastases, 8 (28%) - soft tissue metastases and 13 (45%) - visceral lesions (7 - lung, 2 - brain, 1 - liver, 2 - ovary, 1 - multiple sites); 3 concurrently with bone metastases. 10 pts (34%) had single metastatic lesion. 24 (83%) were treated with hormonal therapy (4 as the sole treatment modality), 15 (52%) with ChT (3 as the sole treatment modality), 14 (48%) received palliative RT and 3 pts (10%) underwent surgical removal of metastatic lesions. Additionally

4 pts (14%) received bisphosphonates and 2 (7%) - steroids. 12 pts (41%) remain progression free and 17 (59%) have developed disease progression at 6-84 months (median 39 months). 4 pts (14%) died of disease after 60-71 months since dissemination and 25 (86%) are alive after 60-194 months (median 71), of whom 20 (69%) without progression.

Conclusion: There are no clearly identifiable clinical characteristics heralding long-term survival in MBC. The common use of hormonal therapy in long-term survivors may reflect less aggressive tumor behavior, a typical indication for this modality.

Wednesday, 20 March 2002 16:30–18:00

PROFFERED PAPERS

Psychosocial oncology – information – communication – education

141 ORAL

Consumer led patient information: a consensus study

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Objectives: Traditionally, patient information has been designed by professionals. As part of an intervention study looking at the impact of research information given to patients prior to diagnosis, a novel approach to information design was taken by including consumers at the design stage. This consensus approach has not been previously investigated. The aims were to:

– develop a new process of generating patient information

– utilise this technique to develop consumer information for use in an intervention study

– develop a model of information design that can be employed in future research

Design: A three round consensus approach was used:

– consumer groups reviewed a basic outline of the proposed information

– professionals were asked to refine the information document

– consumer groups reviewed the revised information

Setting: Northern England.

Participants: Five breast cancer support groups, Sheffield Cancer Services Users Advisory Group, primary and secondary healthcare professionals.

Main Outcome Measures:

– to produce patient information using a consensus approach

– to evaluate consumers' and professionals' attitudes toward the process

– to foster links between healthcare profesionals and consumers

Results: The final information document has been produced.

Conclusions: The methodology used was a sensitive, inclusive and focused way of developing patient information. Patients' needs were directly addressed because the study utilised an ethical, bottom up methodology; patients' opinions were considered from the outset and the principle of informed consent was underlined

142 ORAL

Europa Donna model in a developing country with limited resources

G. Nabbout[1], A. Taysoun[2], R. Hamati[2], M. Douaihy[2]. *[1] Department of Surgery, Centre Hospitalier du Nord, Lebanon; [2] Volunteer worker*

Background and Objectives: The main cancer-related problems in Lebanon, as in most developing countries are the lack of public awareness about cancer in general and breast cancer in particular, and the absence of national screening programs and guidelines.

We aimed at creating a hospital-based organization of volunteer local women, working alongside specialist doctors, and non-governmental organizations, with the following objectives:

(1) promote public awareness on breast cancer.
(2) attend to the physical and psychological needs of women with breast cancer.
(3) ensure that patients fully understands their treatment strategies and options.
(4) undertake population based studies and researches with the help of professional staff and local non-governmental organizations.

Work Done: The knowledge and misconceptions in our society were first assessed (presented at the EBCC2), and we published a booklet in Arabic to rectify these misconceptions.

A hospital-based organization of volunteer women was created, and this is a first of its kind in Lebanon. A patient support group prepared, working with women with breast cancer in the radiotherapy and chemotherapy units at the hospital, as well as with local NGO's in different areas.

We have started a campaign for breast awareness and early detection, including lectures, reading materials and a walk-in free breast clinic in the different areas in our region. A free breast clinic was started in May 2001 at the hospital.

A survey among breast cancer patients to assess doctor-patient relationship and the problems encountered by the patients is currently in progress.

We have additional problems to answer to, because of our economic crisis, and more and more patients can't afford the cost of rehabilitation.

We have also started a fund raising campaign to be able to support needy patients and to provide free accessories such as breast prosthesis and wigs for patients.

Comments: With the help of volunteer women and professional staff we are trying to promote breast cancer awareness, help in early diagnosis and improve the quality of life of women with breast cancer in all aspects. Our services are free to all and our funding is through membership fees and contributions.

143 ORAL

Breast cancer management- a general practice (GP) perspective

S. Galetakis[1], C.J. Scott[1], J. Samers[1], R. Drummond[2], S. Neil[5], S. Woolf[3], L. Waters[4]. *[1] Inner & Eastern Melbourne BreastCare Consortium, William Buckland Radiotherapy Centre, The Alfred; [2] Inner & Eastern Melbourne BreastCare Consortium, Peter MacCallum Cancer Institute, Victoria, Australia; [3] Inner & Eastern BreastCare Consortium, SouthCity GP Services, Victoria, Australia; [4] Breast Cancer Network Australia, Victoria, Australia; [5] Inner & Eastern Melbourne BreastCare Consortium, Breast Unit @ Mercy Private, Victoria, Australia*

This study conducted by the IEMBCC aimed to assess and describe GPs experience with specialist breast services and to identify GPs education requirements regarding breast cancer.

A 26-item questionnaire was developed and randomly distributed to 450 GPs in the consortiums catchment area. A 23% response rate provided the following information:

On average, GPs had one patient in their practice newly diagnosed with breast cancer per year

GPs referral of patients with breast symptoms was most likely to be made to a private specialist breast service (45%) followed by a public specialist breast service (16%) and this decision was largely influenced by previous experience with the service

GPs communication with specialist breast services was generally described as satisfactory in the initial stages of diagnosis and treatment, however 41% indicated that a phone conversation with a specialist clinician upon patients' discharge from hospital would improve the continuity of patient care

Recent advances in breast cancer management was identified by 65% of GPs as an area which they required further professional development

A resource directory listing available breast services in local areas was requested by 92% of GPs

Results were reported to multi-disciplinary team members of 4 specialist breast services (both public and private) in the consortium.

Three education seminars were conducted in response to the questionnaire findings. Specialist clinicians (surgeons, medical and radiation oncologists and breast care nurses) presented GPs with an overview of the recent advances made in breast cancer treatment and management. An information kit was provided to GPs attending the seminars which included best practice guidelines for the management of breast cancer and a local resource directory.

An evaluation of the seminars indicated that GPs not only furthered their clinical knowledge, but also gained an understanding of the many services available to women and their families such as the breast care nurse service, genetic counselling clinics and lymphoedema services. GPs also indicated that following the seminar they were better equipped and more confident in meeting patients' needs during the treatment phase and beyond.