a woman with breast cancer and liver metastases (but no bone metastases) who had one of 4 different patterns of abnormal liver chemistry.

Results:

Liver tests (normal)			% dose	Mean % dose	Preferred drug
Bili (<18)	AST (<35)	ALP (<260)	recommended	given (range)	dox/epi/either (%)
16	87	186	100	94 (0–100)	40/32/28
12	166	739	100	85 (0–100)	39/33/28
30	132	190	50	67 (0–100)	41/36/23
54	115	169	25	50 (0–100)	40/40/20

Conclusions: Dose modifications varied widely and did not follow current recommendations. There was a trend for epirubicin to be preferred for patients with the worst liver biochemistry. These results show the need for new, widely accepted anthracycline dose modifications for patients with liver dysfunction.

693 PUBLICATION

High dose sequential (HDS) cyclophosphamide (C) and epirubicin (E) with peripheral blood stem cell (PBSC) for metastatic breast cancer (MBC): Promising results

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Survival in MBC remains poor with conventional chemotherapy (CC) and does not appear to be substantially improved with late high-dose chemotherapy with stem cell support. HDS induction chemotherapy appears more promising. We report the preliminary results of a phase II study with HDS C + E in MBC. C (1500 mg/m^2 d1&2 with uromitexan) and E (100 mg/m^2 d1) were given every 2 wks × 4, with G-CSF 5 μg/kg/d × 10. PBSC were harvested after cycle 1, and reinfused after cycle 3&4. After HDS C + E, pts received 6-months of CC. 26 pts are evaluable (median age: 39 y). 9 pts (35%) had prior adjuvant chemotherapy (4 with anthracyclins) Visceral involvement was present in 16 pts (61%). The median number of collected CD34 + was 14.10^6/kg (3–81). Median relative dose intensity was 93% (72–100). No toxic death was observed. 1 pt received only 3 courses because of hematuric cystitis. Median durations of gr 4 neutropenia were 4, 5, 8 and 5 d for each cycle. Febrile neutropenia was observed after 36/101 courses (36%). Only 9 pts experienced a gr 4 thrombocytopenia. A mean of 6 RBC units/pt were transfused. Other toxicities were: gr 2–3 emesis 42%, gr 2–3 mucositis 21%, gr 2–3 liver toxicity 12.5%, and gr 3 alopecia 100%. Results in 25 evaluable pts were: CR 3, PR 14, for a RR of 68% (1 TE). After a median follow-up of 14 m, 2-y-overall survival was 85% and 1-y-progression free survival (PFS) was 74%. Median PFS was 21 months. This regimen is feasible and yields very encouraging survival rates despite conventional response rates.

694 PUBLICATION

Weekly fractionated paclitaxel in metastatic breast cancer – Dose optimising study

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Purpose: A recently published weekly fractionated, dose-intensified schedule of paclitaxel at 90 mg/m^2 weekly × 6, q9w, showed high efficiency and low toxicity Furthermore, patients seemed to have improved their quality of life (QOL).

Methods: As primary endpoints, we analyse the objective response rate. As secondary end points we focus on toxicity according to the WHO classification and on quality of life which is evaluated by a standardised psycho-oncological questionnaire. Neurotoxicity is monitored by electrophysiologic examinations.

Results: Up to now, 23 patients have been included in the study, 14 of whom are already evaluable for response. 4 pts had a partial remission giving 29% of response. In a total of 215 weekly infusions, we observed no anaemia WHO grade III and no cases of thrombocytopenia <100 000 cells/μl. Leucopenia WHO grade III was observed in 1% of all infusions The evaluation of the nerve conduction velocity did not help to foresee or assess neurotoxicity All patients suffered from grade III alopecia. According to the statistical analysis the quality of life is not improved. The median QOL score decreased from 3.79 before treatment to 3.55 after two cycles, but this difference was not statistically significant (p = 0.099).

Conclusions: In metastatic breast cancer weekly fractionated paclitaxel shows a high response rate of 29%. Hematological toxicity is insignificant. Among the non-hematological toxicities neuropathy is predominant. However, electrophysiologic parameters do not help in evaluating neurotoxicity. Although many pts show a regression of their tumor load, quality of life does not improve.

695 PUBLICATION

Brain metastases (BM) in breast cancer (BC): Prognostic factors and management in 162 patients

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Introduction: BC is one of the major causes of BM with about 10–15% of patients (pts.) developing clinically overt brain metastases. Prognostic factors for occurrence and outcome of BM in BC have not been identified.

Methods: In a retrospective study, we analyzed 162 BC pts., in whom BM had been diagnosed clinically between 1969 and 1996.

Results: The median age was 50 years (range 30–78). 81/162 pts. (50%) were premenopausal Women <40 years of age had a shorter survival (median 12 weeks) than those of all other groups (median 29 weeks). Median survival was 82 weeks for surgical pts. (n = 11), 26 weeks for pts. treated with radiotherapy (RT, n = 145) and 5 weeks for pts. who received symptomatic therapy only (n = 17). Pts. with solitary BM, treated with RT alone (45 pts.) had a survival of 44 weeks vs. 19 weeks in pts. with multiple BM Significant prognostic factors for survival were total dosage of RT (p < 0.0001), solitary BM (p < 0.04), and primary tumor size (p < 0.04). 5 pts. with solitary BM, no systemic disease and low grade BC, treated by surgery and RT, survived a median of 508 wks (range 262–520).

Conclusions: Younger pts. with aggressive histologies, especially inflammatory breast cancer, seem to have a higher risk for developing BM. Pts. with solitary BM should receive surgery and RT with a chance of long term remission.

696 PUBLICATION

Treatment and prognosis of male breast cancer: The Heidelberg experience

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As a rare entity Male Breast Cancer (MBC) represents 1% of all male tumors. Because of the reported worse outcome compared to female breast cancer (FBC), prognostic factors and treatment of MBC have to be evaluated.

Methods: 16 patients (Pt) treated at Heidelberg University from 1984–1997 were analyzed retrospectively. Median age at diagnosis was 55 (44–75) years. 14/16 Pt had an invasive ductal carcinoma; 9/11 Pt (82%) were progesterone and 7/11 Pt (64%) estrogene receptor +. 4 Pt were T1, 7 T2, 1 T3, 2 T4, 2 Tx; modified radical mastectomy was the initial therapy in all Pt. 9/15 Pt with axillary lymphonodectomy were N+. 1 Pt presented bilateral MBC.

Results: None of the Pt had a positive cancer family history. As in FBC, node-negative Pt had a better prognosis than Pt with lymph node involvement. However, the PR + status appeared to be related to a worse prognosis. After adjuvant CMF-chemotherapy (CT), 6×, and radiation of the chest or tamoxifen, 8 Pt (>T2N1) developed visceral metastases within 2 years, i.e. 50%; 7 Pt. (44%) developed bone metastases. In the palliative situation 5 Pt received EC-CT with 2 PR and 1 NC. 3 Pt treated with NOSTE-CT had 1 PR. Additionally, tamoxifen or aromatase inhibitors were used, palliatively. Median 3/5 year survival was 56%/47%, respectively.

Conclusion: Tumor size and nodal status were the most important prognostic factors. In the palliative situation Pt have a benefit from the EC-CT. The survival rates of MBC are comparable to FBC. The prognostic significance of the hormonal status and other molecular markers have to be further evaluated.