6 complete responses (16.6%) and 22 partial responses (61.1%) for an overall RR of 77.7%. Responses were observed at all dose-levels.

Conclusions: The alternating administration of D and M is feasible and safe. This schedule allowed a dose intensification of mitoxantrone up to 108% without reaching yet the MTD.

683 POSTER

## Endocrine effects of toremifene (TOR) at the level of CNS in advanced breast cancer patients

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**Purpose:** To differentiate the antagonistic and agonistic effect of TOR (Fareston<sup>R</sup>) at the level of the hypothalamus-hypophysis (HT-HP) axis, LHRH test was performed during a phase II clinical trial.

Methods: In 15 postmenopausal patients with advanced breast cancer FSH, LH and PROL release – induced by LHRH agonist (Suprefact<sup>R</sup> 0.5 mg sc) – was monitored during a 16-week TOR treatment (60 mg/day po). The functional test was carried out prior TOR therapy and then 4, 8, 12, 16 weeks afterwards. Hormone levels were measured by RIA method.

Results: TOR sensitizes the HP to the action of gonadotrophins, the LHRH induced FSH and LH release has a considerable increasing tendency during the therapy. The fall of the base levels of FSH and LH in postmenopausal patients may be due to a partial agonostic activity on the HT or an antagonistic activity on the HP. An increased LH secretion was characteristic to the responders. Non-responders did not show a normal response to LHRH. It seems that a very sensitive HP function would predict the patients sensitivity to TOR treatment. The PROL release, induced by LHRH, was more pronounced in responders.

Conclusion: The antagonistic effect of TOR seems to be more dominant than the agonistic property. The LHRH test proved that TOR exerts its effect at the level of the HP. TOR did not affect adversely the normal endocrine regulation of breast cancer patients at the level of CNS.

684 POSTER

# Navelbine (NVB) plus mitomycin (MMC) or mitoxantrone (MTZ) as salvage regimen in metastatic breast cancer (MBC): A randomized trial

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NVB is a new semisynthetic vinca alkaloid that shows a 24% response rate (RR) in previously treated MBC cancer. As anthracyclines are often used as initial treatment for advanced disease, new drugs and combinations required for relapsed or refractory patients. Between 4/93 and 4/95, 86 patients were included in a randomized trial to receive NVB 25 mg/m² days 1 and 8 IV plus MMC 7 mg/m² IV (A) or MTZ 8 mg/m² IV (B). The 3 drugs each 21 days. Characteristics of population: (A/B) evaluables: 40/40, mean age: 56.2/55, number of metastatic sites: 1 = 14/11, 2 = 19/24 3 = 10/8. Dominant metastatic pattern: nodes-bone-soft tissue: 27/27 visceral: 13/13. Previous hormono: 36/37. Previous chemo: advanced disease (40/40), adjuvant: (8/8) all anthracyclines. RR: A: 50% (20/40 PR) B:50% (2/40 CR 18/40 PR). Survival: (median): A:7 m B:7.2 m (p 0.667) Mean N° of cycles A:3 B:3 Toxicity G3—4 (by cycles) A/B:153/153 cycles Neutropenia A = 18 B = 14 (p0.65). Thrombocytopenia A:2 B:1 (p:0.72) Alopecia A:2 B:0 (p0.0045). There were no drug related deaths.

Conclusion: 1) A and B were similar in RR, survival and toxicity 2) Both schedules are easy to administer with low toxicity profile.

685 PUBLICATION

## Preliminary results from an early phase II combination of gemcitabine and taxol in metastatic breast cancer

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Purpose: Gemcitabine, a nucleoside analog, has single agent activity in breast cancer with a 25% response rate in phase II trial. The different toxicity profiles and mechanisms of action of gemcitabine and paclitaxel suggested their use in combination, and 22 patients with pretreated metastatic breast cancer have received a biweekly gemcitabine-paclitaxel treatment.

Methods: Paclitaxel was given at a dose of 135 mg/m2 over 3 hours days 1 and 15, followed gemcitabine at a dose of 2500 mg/m2 over 30 min. dayus 1 and 15. To date 22 patients have been included evaluable for response. Median age is 51 (44–69), performance status (0–1) in 19 patients and 2 in 4 patients. Every women have been received previous salvage chemotherapy treatment; 20 patients have received antracycline based chemotherapy and 8 have received paclitaxel for metastatic disease. Metastases were localized in lung (9), liver (6), bone (6), pleura (3) and lymph nodes (4).

Results: Analysis of toxicity data (WHO grade) after 116 cycles is a follow: neutropenia grade 3 or 4 occurred in 28% of cycles -3% grade 4 with one neutropenic fever episode- and thrombocytopenia grade 3-4 in 5%. In general hematological toxicity was moderate. Non-hematological toxicity included mild nausea and peripheral neuropathy. One reversible episode of cardiac toxicity grade 3 has been observed. Of the 22 patients enrolled so far there are 2 CR, 7 PR, 6 SD and 7 PRO with an OR rate of 41%.

Conclusion: These results indicate that the association of gemcitabinepaclitaxel biweekly is well tolerated and highly effective in anthracyclin-resistant pretreated metastatic breast cancer. Patients accrual is still ongoing and definitive results will be presented.

686 PUBLICATION

#### Taxotere in the treatment of patients with advanced breast cancer

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Methods: Twenty eight pts with morphologically proven advanced breast cancer were treated with taxotere. Taxotere was administered in dose 100 mg/m² every 3 weeks. The prophylactic medication with methylprednisone 32 mg per os has to be given 13, 7 and 1 hour before the infusion and should be continued on the day of administration and for 96 hours after at the same dose twice daily (b.i.d.). The average age pts was 49.3 (32–67), WHO PS 0–2, 19 pts previously operated. 22 pts have received previously chemotherapy: neoadjuvant – 2, adjuvant – 13 (5 with anthracyclines, 9 – CMF), curative – 8 (7 with anthracyclines, 1 – CMF). Taxotere was used as the first line of treatment in 20 pts, as the second line in 8 pts.

Results: The results of treatment were the following: overall response was 15/28 (53.7%), CR – 3/28, PR – 12/28, SD – 3/28, PD – 10/28. The best results (OR – 11/20) were observed in pts who had only adjuvant chemotherapy, or previously untreated. 3 pts had the improvement of results after the study termination. The toxicity in 184 cycles were the following: anemia 22.8% (Gr II – 16.3%), neutropenia 57.6% (Gr III–IV – 37.5%), but only in 4 cases the dose was reduced, because of febrile neutropenia. All cases of neutropenia were reversible and had short duration (<7 d). There were no cases of trombocytopenia. We did not observed any nausea and vomiting. The incidence of mucositis was 66/184 (35.8%), Gr II 14/184 (7.6%), diarrhea – 37/184 (20.1%), Gr II – 7/184 (3.8%), fluid retention syndrome 38/184 (20.7%) Gr II 2/184 (1.0%), neurotoxicity 43/184 (23.3%) Gr II 15/184 (8.2%), myalgia, arthralgia 16/184 (8.7%). Skin toxicity Gr II 23/184 (12.5%).

Conclusion: Taxotere as a single agent is a high effective cytostatic agent against advanced breast cancer.

687 PUBLICATION

#### Experiences with thermoradiotherapy of locally recurrent breast cancer

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Background: In inoperable or R1/2 resected recurrent breast cancer thermoradiotherapy is established. We analysed acute side effects of thermoradiotherapy in locally recurrent breast cancer depending on duration, applicator arrangement, electric field parameters, bolus temperature, placement of temp. probes and applicators.

Material and Methods: Thermoradiotherapy was performed in 17 pat, with median dose of 58 Gy (30–60 Gy) combined with twice weekly hyperthermia applications (BSD 2000, MA150, MA120, SA115). In group 1 (6 pat.) skin cooling by bolus temp. of 15–20°C and intratumoral and epicutaneous temp. mapping was performed. Group 2 (11 pat., 2 × patchwork) with cutaneous lymphangiosis or infiltrated skin or R1-resection received bolus temp. of 40°C, monitored by epicutaneous temp. mapping.

Results: In group 1, median intratumoral temp. of 41.5°C (41.1-42.3°C) and max. temp. of 42.6-44.0°C were recorded in a median of 8 (2-12)