applications with 20–160 W over 75 min. In group 2, median epicutaneous temp. of 41.2°C (40.0–42.0°C) and max. temp. 41.9–44.0°C were recorded in a median 10 (3–23) applications with 10–45 W over 60 min. In group 1 2/6 pat. presented with blisters/necrosis whereas no blisters were seen in group 2. Moist desquamation occurred in 2/6 pat. and 3/11 pat. in group 1 and 2, respectively.

**Conclusion:** To avoid hyperthermia induced blisters/necrosis epicutaneous temp. mapping is most important. In case of lymphangiosis cutis or infiltrated skin, bolus temp. of 40°C provide homogeneous heating of the chest wall. Large applicators increases the risk of "hot spots" and blisters/necrosis.

688 PUBLICATION

## Taxol (T) and mitoxantrone (M) as first line treatment in advanced breast cancer (ABC) patients. A phase II study of the Southern Italy oncology group (GOIM)

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**Purpose:** In phase I/II studies the combination of T with anthracyclines yielded response rate ranging from 63% to 94%, sometimes with significative cardiotoxicity. In prospective randomized trials, M has shown a clinical activity only slightly inferior to that of anthracyclines, but with less incidence of alopecia, nausea/vomiting and cardiotoxicity. In view of these considerations, in April 1996 we started a phase II study with the combination of T and M as first line treatment of ABC.

**Methods:** Patients with histologically proven diagnosis of ABC, age between 18 and 65 years, adequate haematologic and normal renal, hepatic and cardiac functions, were elegible for the study. T was administered as a 3-hour intravenous infusion after standard premedication with steroid, antihistamine and $H_2$-blockers at a dosage of 175 mg/m$^2$; M was administered intravenously at a dosage of 12 mg/m$^2$. Courses were repeated every 3 weeks.

**Results:** To date, 23 patients were enrolled in the study and 16 are fully evaluable for clinical efficacy and toxicity. We obtained 4 CR, 7 PR and 5 SD for a total of 11 OR (69%) with a median duration of response of 6+ months and a median duration of survival of 7+ months. Toxicity was mild and mainly of grade I–II according to WHO criteria.

**Conclusion:** From our preliminary data of this ongoing study, the combination of T and M seems to be an effective and safe chemotherapy regimen for patients with ABC.

689 PUBLICATION

## Factors predicting response to chemo-endocrine treatment in advanced breast cancer

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**Purpose:** Chemo-endocrine treatment as used in our institution is well tolerated even by heavily pretreated patients with advanced breast cancer. In a retrospective study the response rate and duration of response to this treatment regime was evaluated to find factors that predict good response to this treatment.

**Methods:** Response (CR, PR, NC) of 129 patients with metastatic breast cancer to chemo-endocrine treatment using Cyclophosphamide (100 mg/d p.o.), Methotrexate (25 mg/week i.v.), 5-Fluorouracil (500 mg/w i.v.), Prednisone (10 mg/d p.o.) and Methenolone (300 mg/w i.m.) was evaluated in correlation to steroid receptor status, prior disease-free interval, site of metastatic disease and previous treatement.

**Results:** Response rates were higher in patients with estrogen-and/or progesterone receptor positive tumors (80% vs. 37% in hormone-receptor negative), with long disease-free interval (78% in patients >2 years vs. 66% in patients <2 years), and with endocrine pretreatment (85% vs. 35% with chemotherapeutic pretreatment). Patients with bone metastasis showed better response (77%) than women with other metastatic sites (61%). Response rates were 73% with two and 68% with three previous treatment regimes.

**Conclusions:** Combined chemo-endocrine treatment is most effective in patients bone metastasis, positive receptor status and after response to prior endocrine therapy and is showing good response rates even in pretreated patients.

690 PUBLICATION

## Phase II study of i.v navelbine (NVB) and doxorubicin (DOX) in previously untreated advanced breast cancer (ABC)

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Promising results have previously been obtained with the combination of NVB and DOX. 74% of the 89 patients (pts) responded with 21% CRs (JCO, 1994 Spielmann). A phase II study was conducted in South Africa in order to confirm these results with I.V NVB 25 mg/m$^2$ D1 & D8 + DOX 50 mg/m$^2$ IV on D1, every 21 days, for 8 cycles maximum. Forty chemotherapy-naive pts with ABC were treated. Up to now, 24 pts are evaluable for tolerance and response. Median (m) age was 47.7 y (25–69). All pts had Good PS: 0–1. At the inclusion, 77% pts had metastatic disease and 70% had extensive loco regional disease (m. size of local disease = 80 mm Ø, (range 20–140). 60% pts had ≥3 metastatic sites of which 45% were visceral (38% liver and 7% lung). In total, 223 cycles were administered (m per pts: 5, range 1–8). The overall response rate was 54% (CR 8%, PR 46%/95 CI 34–74%). 2 further pts obtained an objective response but were not available for confirmation. Pt's WHO grade 3 toxicity was as follows: Alopecia 69%, nausea/vomiting 15%, stomatitis 11.5%, phlebitis 4%. WHO grade 3 neutropenia was observed in 27% pts and grade 4 in 15% pts (2 of whom died). Grade 1 peripheral neuropathy was only observed in 4 pts (15%). No cardiac impairment was observed. Given the large tumor bulk of local disease in these patients, very good results and tolerance were documented.

691 PUBLICATION

## The LHRH analogue triptoreline (TRP) with or without the aromatase inhibitor formestane (4-OHA) in premenopausal advanced breast cancer: A study by the I.T.M.O. group

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**Purpose:** This pilot study was undertaken by our group with the aim of acquiring information on the feasibility and toxicity of combined TRP and 4-OHA treatment in premenopausal patients (pts) with previously untreated advanced breast cancer.

**Methods:** 28 consecutive pts were randomised; 15 pts received TRP 3.75 mg i.m. monthly alone, and 13 pts received it in combination with 4-OHA 500 mg i.m. fortnightly. Eligible pts had to have measurable lesions, ECOG PS 0–2, and ER and/or PgR positive tumours. Postmenopausal status was defined as last menstrual period more than 1 year ago. Blood samples for measuring serum oestrogen and gonadotrophin levels were taken before and during treatment.

**Results:** There was no difference in terms of age, DFI, and PS between the two groups; 32% of pts had multiple disease sites. The intent-to-treat analysis showed objective responses in 27% of pts (2 CR + 2 PR) on TRP and in 31% (1 CR + 3 PR) on TRP + 4-OHA. The median duration of response in the two groups was 16+ months (range, 7+–21) and 11+ (range, 7–16), respectively. The sites of response were soft tissue (3 CR) and viscera (5 PR); SD occurred in 5 pts on TRP, and in 4 on TRP + 4-OHA. Local and systemic tolerability was highly satisfactory in both treatment groups. The endocrine evaluations are in progress.

**Conclusion:** In our experience, the concurrent use of TRP and 4-OHA proved to be a feasible and well tolerated approach in the management of premenopausal advanced breast cancer.

692 PUBLICATION

## Are new anthracycline dose recommendations needed for patients with liver dysfunction?

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**Purpose:** To investigate whether U.K. oncologist follow current anthracycline dose modifications when treating patients with liver dysfunction.

**Methods:** One hundred and seventy oncologists replied to a questionnaire asking the % of full dose doxorubicin or epirubicin they would prescribe