

## References

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PUBLICATION

**Quality of life and anxiety-depression relationship in female patients with metastatic malignancy**

H. Engin<sup>1</sup>, S. Ozer<sup>2</sup>, I. Celik<sup>3</sup>, A. Gogus<sup>2</sup>, G. Tekuzman<sup>3</sup>. <sup>1</sup>Karalimas University, Medical Oncology, Zonguldak, Turkey; <sup>2</sup>Hacettepe University, Psychiatry, Ankara, Turkey; <sup>3</sup>Hacettepe University, Medical Oncology, Ankara, Turkey

**Background:** Adaptive psychological symptoms or clinical psychological disorders can be seen and both are common problems during diagnostic, treatment, and metastatic periods in cancer patients. Depression and anxiety are the most common psychological issues in all three periods. If anxiety and depression can not be diagnosed and treated adequately, they both can affect the compliance with treatment, and quality of life negatively, as well. Anxiety and depression relationship and their effects on quality of life have been investigated in this cross-sectional study.

**Patients and methods:** The study group was formed of 61 female patients who were clinically followed up at Hacettepe University Oncology Institute. During these follow-ups, between January 2001 and March 2002, patients were diagnosed with metastatic cancer for the first time. EORTC QLQ C30 Version 2.0 and HAD Scale has been conducted 1 day before starting metastatic malignancy treatment. Definitive statistics and Mann-Whitney U test has been used during these analysis.

**Results:** Groups were set regarding the anxiety and depression cut-off score points (10 and 7, respectively) and compared for all parameters of quality of life. Between patients' anxiety standing lower than cut-off point and higher than cut-off point, there has been meaningful differences determined among quality of life parameters, emotional condition ( $z = -4.27$ ,  $p = 0.000$ ), and cognitive condition ( $z = -3.06$ ,  $p = 0.002$ ) ( $z = -2.03$ ,  $p = 0.042$ ); fatigue ( $z = -3.84$ ,  $p = 0.000$ ), and sleep ( $z = -2.85$ ,  $p = 0.004$ ) on symptom scale, and economical condition ( $z = -2.46$ ,  $p = 0.014$ ), general well-being ( $z = -2.16$ ,  $p = 0.031$ ). Between patients' depression standing lower than and higher than cut-off point, there also has been meaningful differences determined among quality of life parameters, physical condition ( $z = -2.32$ ,  $p = 0.020$ ), emotional condition ( $z = -2.28$ ,  $p = 0.023$ ), cognitive condition ( $z = -2.03$ ,  $p = 0.042$ ), and social condition ( $z = -2.03$ ,  $p = 0.042$ ) on functional lower scale; fatigue ( $z = -1.95$ ,  $p = 0.050$ ), appetite ( $z = -2.49$ ,  $p = 0.013$ ), general well-being ( $z = -2.86$ ,  $p = 0.004$ ) on symptom scale.

**Conclusions:** Among patients with metastatic malignancies, anxiety and depression should be screened with self-rating scales and the patients with a score higher than the threshold value and diagnosed with anxiety and depression should be evaluated psychiatrically and receive appropriate psychiatric treatment.

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PUBLICATION

**Impact of Hb intervention level on outcomes in cancer patients treated with epoetin beta: results of a meta-analysis**

J. Dunst<sup>1</sup>, B. Coiffier<sup>2</sup>, M. Nowrousian<sup>3</sup>, H. Burger<sup>4</sup>. <sup>1</sup>Martin Luther University Halle-Wittenberg, Department of Radiotherapy, Halle, Germany; <sup>2</sup>Centre Hospitalier Lyon-Sud, Lyon, France; <sup>3</sup>West Germany Cancer Centre, University Hospital of Essen Medical School, Department of Internal Medicine (Cancer Research), Essen, Germany; <sup>4</sup>F. Hoffmann-La Roche, Basel, Switzerland

**Background:** There is a lack of studies examining the effect of haemoglobin (Hb) intervention levels on treatment outcomes in patients with cancer who are receiving erythropoietic proteins. The aim of this analysis was to determine the impact of different Hb intervention levels on overall survival, disease progression, thromboembolic event (TEE) incidence and transfusion-free survival in patients treated with epoetin beta (NeoRecormon®).

**Methods:** Data were pooled from nine randomised, controlled (placebo or standard care) clinical trials of epoetin beta in anaemic patients with cancer. Follow-up was limited to the duration of study treatment plus a standard 4-week period. Patient records were grouped according to Hb level at baseline (Hb <9 g/dl, <10 g/dl, <10.5 g/dl, <11 g/dl, 11–12 g/dl or ≥12 g/dl). Data were analysed by standard Kaplan-Meier methods and Cox regression.

**Results:** A total of 1413 patients were included in this analysis (epoetin beta,  $n = 800$ ; control,  $n = 613$ ); 44% had solid tumours and 56% had haematological malignancies. In all patients with Hb <11 g/dl at baseline, there was no indication of a significantly increased risk of death (relative

risk [RR] 0.99, 95% CI: 0.69, 1.41), disease progression (RR 0.80, 95% CI: 0.62, 1.02) or TEE risk (RR 1.41, 95% CI: 0.80, 2.47) associated with epoetin beta. In the same patients, epoetin beta was associated with greater transfusion-free survival (RR 0.70, 95% CI: 0.59, 0.83). In patients with Hb levels of 11–12 g/dl at baseline there was no significant negative effect of epoetin beta treatment on survival (RR 0.90, 95% CI: 0.16, 4.95), disease progression (RR 1.30, 95% CI: 0.34, 4.93) or TEE risk (RR 0.39, 95% CI: 0.10, 1.46). Greater transfusion-free survival was associated with epoetin beta in these patients (RR 0.49, 95% CI: 0.20, 1.21).

**Conclusions:** In this large meta-analysis, treatment with epoetin beta at baseline Hb levels of <11 (or <12) g/dl has no negative impact on survival, disease progression or TEE risk and reduces transfusion need effectively in patients with cancer. These findings show that it is safe and effective to treat patients with epoetin beta at intervention levels of 9–11 g/dl (and <12 g/dl), as recommended in the EORTC guidelines.

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PUBLICATION

**Clonidine vs. Venlafaxine as treatment for hot flashes in breast cancer patients – a double-blind randomised study**

S. Loibl<sup>1</sup>, K. Schwedler<sup>1</sup>, G. von Minckwitz<sup>1</sup>, R. Strohmeier<sup>1</sup>, K.M. Mehta<sup>2</sup>, M. Kaufmann<sup>1</sup>. <sup>1</sup>J.W. Goethe University, Obstetrics and Gynaecology, Frankfurt am Main, Germany; <sup>2</sup>German Breast Group, Statistic, Neu-Isenburg, Germany

**Background:** Breast cancer patients are more susceptible to severe hot flashes due to the cytotoxic and endocrine treatment. This is one of the unsolved problems in cancer treatment because classical hormone replacement therapy is contraindicated in breast cancer especially in endocrine responsive disease.

**Patients and methods:** In a double blind, randomised phase III study 80 consecutive breast cancer patients (pts) who had hot flashes at least twice a day, and were not taking any medication against hypertension and depressions received either clonidine 0.075 mg b.d. or venlafaxine 37.5 mg b.d. for four weeks. The primary endpoint is defined as frequency of hot flashes at week 5. The sample size in each group is 35 with alpha 0.1, one-sided significance level and 80% power. The null-hypothesis is defined as no difference between the groups, and the alternative hypothesis assumes a difference of 20%. A self reported one week hot flash and other symptom questionnaire was kept prior to the start of treatment until the end of the treatment course.

**Results:** From 4/02–10/04 80 pts. were recruited of whom 69 were evaluable. 34 received clonidine and 35 venlafaxine, 4 pts. stopped early because of side effects and 7 pts. went missing. The median age was 53 years (range 35–76). All hot flashes were assigned a grade of 1, 2, 3 or 4 for mild, medium, severe and very severe, respectively. There was no difference in severity or frequency of hot flashes between the two groups at baseline. The frequency of hot flashes was reduced by clonidine by 22% and by venlafaxine by 62% ( $P = 0.0001$ ). Similar results appeared for the severity of hot flashes. Clonidine reduced the severity by 48% whereas venlafaxine reduced them by 67% ( $P = 0.05$ ).

The side effects were self reported by the patients. Most of the side effects appeared in the first week and decreased thereafter. Mouth dryness was the most commonly reported side effect in both groups. In the clonidine group tiredness was reported by 25% of the patients vs. 33% in the venlafaxine group. Nausea was more common in the venlafaxine group than in the clonidine group with 25%.

**Conclusion:** Hot flashes can be reduced in frequency and severity by clonidine and venlafaxine. Venlafaxine is significantly more effective in reducing hot flashes in severity and frequency than clonidine. Venlafaxine acts faster. Venlafaxine should be used to ameliorate hot flashes in breast cancer patients. Side effects have a peak in the first week of treatment and decrease thereafter.

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PUBLICATION

**Epithelial ovarian cancer in elderly patients (70 years or over): analysis of efficacy and tolerability of platinum-based chemotherapy**

N. Cacciari<sup>1</sup>, A. Bernardi<sup>1</sup>, F. Sperandi<sup>1</sup>, F. Massari<sup>1</sup>, S. Quercia<sup>1</sup>, M. Rosati<sup>1</sup>, P. De Jacobo<sup>2</sup>, F. Rosati<sup>2</sup>, C. Zamagni<sup>1</sup>, A. Martoni<sup>1</sup>. <sup>1</sup>S. Orsola-Malpighi Hospital, Medical Oncology Unit, Bologna, Italy; <sup>2</sup>University of Bologna, Dept. of Obstetrics and Gynaecology, Bologna, Italy

Data on the efficacy and the tolerability of chemotherapy for epithelial ovarian cancer (EOC) in women aged 70 and over are lacking because elderly patients are poorly represented in clinical trials.

We report an analysis on our experience concerning 50 elderly pts (median age 73 years, range 70–89) treated with first-line carboplatin-based chemotherapy for FIGO stage IC-IV EOC (41 pts) or second-line (9 pts) chemotherapy for relapsed EOC. The median Karnofsky PS was 90% (range 50–100%). Comorbidities were evaluated according to

the Cumulative Illness Rating Scale Geriatrics (CIRS-G). The median number of comorbidities was 2 (range 0–5) with a median CIRS-G score 1 (range 1–2); the median index of complex comorbidity was 1 (range 0–4). The pts were treated with carboplatin AUC 5 combined with cyclophosphamide (23 pts) or with paclitaxel (13 pts); 13 pts were treated with single agent carboplatin and one patient with cisplatin, epirubicin and cyclophosphamide.

**Results:** a) *Tolerability:* grade 3 or 4 neutropenia was observed in 21 cases (42%; grade 4 in 10 pts); grade 4 thrombocytopenia and grade 3 anemia were seen in one (2%) and in 2 pts (4%) respectively. Excluding alopecia, grade 3–4 extra-haematological toxicity was observed only in one case (grade 3 diarrhoea). A 10 to 30% dose-reduction because of side effects was required in 15 pts (30%) and the dose was reduced by 50% in one patient because of haematological toxicity. Furthermore 3 pts treated with combination carboplatin and paclitaxel were shifted to single agent carboplatin because of hypersensitivity reactions.

b) *Efficacy:* 16 pts (32%) are not evaluable for response because there was no evidence of disease after surgery; in seven more pts (14%) the response was not evaluated because of withdrawal from treatment after the first cycle (2 cases) or because the treatment is still ongoing (5 cases). In 27 evaluable pts we observed 5 (19%) cCRs and 11 PRs (41%), 9 (33%) stable diseases and 2 (7%) progressions. The cCRs were observed in 3 pts treated with first-line chemotherapy for stage IIIC and IV EOC and in 2 pts treated for relapsed EOC. The age of complete responders ranged from 70 to 78 years, their KPS was 70–100% and their median CIRS-G score was 1.

**Conclusions:** in our experience with carboplatin-based chemotherapy in patients aged 70 or over in good general conditions the remission rate was 60%, including 5 clinical complete remissions and the toxicity was moderate; a dose reduction because of toxicity was required in 38% of the patients.

### 1346

### PUBLICATION

#### Clinical overview of electroporation with bleomycin sulfate: the potential role of this novel therapy in the management of solid tumors with different histologies

P. Goldfarb<sup>1</sup>, L. Lofgren<sup>2</sup>, M. Chazal<sup>3</sup>, T. Plath<sup>4</sup>, R. De Bree<sup>5</sup>, J.J. Grob<sup>6</sup>, S. Rodriguez Cuevas<sup>7</sup>, M. Burian<sup>8</sup>, P. Radny<sup>9</sup>. <sup>1</sup>Oncology Associates, Oncology, San Diego, USA; <sup>2</sup>Orebro University Hospital, Head & Neck Oncology Center, Orebro, Sweden; <sup>3</sup>Clinic St. Antoine, Nice, France; <sup>4</sup>Univ. Benjamin Franklin/Charité, Berlin, Germany; <sup>5</sup>VU Medical Center, Dept of Otolaryngology/Head & Neck, Amsterdam, Netherlands; <sup>6</sup>Hospital Ste Marguerite, Marseille, France; <sup>7</sup>Hospital de Oncologia, Mexico City, Mexico; <sup>8</sup>HNO-Klinik/Leitstelle, Otolaryngology, Vienna, Austria; <sup>9</sup>University of Freiburg, Dermatology, Freiburg, Germany

This abstract describes the experience with the MedPulser® Electroporation Therapy System for the treatment of solid tumors using the drug bleomycin sulfate injected locally into tumors. The MedPulser® has been used for over 9 years and 178 patients with 390 lesions have been treated. These included various cutaneous malignancies, squamous cell head and neck carcinoma, recurrent breast cancer. In cutaneous tumors there was an objective response in 86% of 256 lesions treated. These include squamous and basal cell cancers of the skin as well as Merkel cell tumors, Kaposi's sarcomas, and metastatic melanomas. Four clinical studies using electroporation have been completed thus far for the treatment of advanced head and neck cancer, with 59% objective response rate in 64 patients evaluated.

In a separate study of primary and limited recurrent squamous cancer of the head and neck, there was an 80% histologically confirmed complete response in 20 patients who received electroporation, followed 4 weeks later by excision of the treated tumor. Currently, there is an ongoing global Phase III study in limited recurrent and second primary head and neck cancer for US registration and a Phase IV pharmacoeconomic study for recurrent and primary head and neck cancer being conducted in selected countries in Europe. Preliminary studies are underway to evaluate EPT with bleomycin in the management of cutaneous recurrences of breast cancer. Two patients with pancreatic cancer have been treated and in one, the disease appeared to stabilize for several months. This will be further evaluated in additional clinical studies. In previous clinical studies conducted in France 15 patients with 31 hepatic lesions were treated with EPT-bleomycin with stabilization in 65% of the lesions for 3 to 6 months. The incidence and severity of complications in these studies appears to be no worse than that reported in a series of patients treated surgically for similar disease. This abstract summarizes the largest series of patients treated with electroporation using bleomycin to date.

### 1347

### PUBLICATION

#### Breast cancer-Anaemia and the Value of Erythropoietin (BRAVE): preliminary results from a study of the efficacy of epoetin beta 30,000 IU once weekly in patients with metastatic breast cancer receiving chemotherapy

M. Marangolo<sup>1</sup>, I. Lang<sup>5</sup>, C. Beato<sup>3</sup>, R. Colomer<sup>3</sup>, L. Ukarma<sup>4</sup>. <sup>1</sup>St Maria delle Croci Hospital, Oncology/Hematology Department, Ravenna, Italy; <sup>2</sup>Hospital Amaral Carvalho, Jaú, Brazil; <sup>3</sup>Hospital Josep Trueta, Girona, Spain; <sup>4</sup>F. Hoffmann-La Roche, Basel, Switzerland; <sup>5</sup>National Institute of Oncology, Budapest, Hungary

**Background:** Anthracycline and/or taxane-based chemotherapy (CT) regimens are commonly used to treat metastatic breast cancer and there is a high incidence of anaemia in patients receiving this treatment. The BRAVE study is being conducted to assess the impact of once-weekly epoetin beta (NeoRecormon®) 30,000 IU on haemoglobin (Hb), survival, disease progression, safety and quality of life in patients with metastatic breast cancer receiving anthracycline and/or taxane-based CT.

**Methods:** Adult patients with metastatic breast cancer, Hb levels <12.9 g/dl and scheduled to receive anthracycline and/or taxane-based CT were entered into this open-label, randomised, multicentre, two-arm study. Patients received epoetin beta 30,000 IU once weekly or control therapy (standard care) over 24 weeks (treatment phase). The primary endpoint is overall survival, available 18 months after the last patient's last treatment visit.

**Results:** Recruitment was completed with 463 patients enrolled. The treatment groups were well balanced with regard to baseline characteristics (Table). There was a significant mean increase in Hb from week 5 to end of treatment of 1.4 g/dl (SD 1.3 g/dl) in the epoetin beta group versus a mean decrease of -0.2 g/dl (SD 1.3 g/dl) in the control group (p < 0.0001). The number of blood transfusions was reduced by around 50% in the epoetin beta treatment group, with 33 patients (14%) receiving at least one blood transfusion versus 62 patients (27%) in the control.

	Epoetin beta (n = 231)*	Control (n = 231)*
Mean age (± SD), years	55.8±10.8	56.7±11.4
Mean weight (± SD), kg	67.3±12.9	67.0±13.6
Race, % Caucasian	90%	90%
Breast cancer subtype, % ductal	79%	79%
Mean time (± SD) between diagnosis of metastatic disease and study entry, months	21.2±30.3	21.0±32.6
Hormonal status, % positive	72%	71%
Mean baseline Hb (± SD), g/dl	11.5±1.2	11.2±1.3

\*Safety Population (n = 462)

**Conclusion:** These data show that treatment with epoetin beta 30 000 IU once weekly results in a highly significant increase in Hb levels in patients with metastatic breast cancer receiving anthracycline and/or taxane-based CT. Mature data on the primary survival endpoints will be available after the last patient has finished the 18-month follow-up period in 2006.

### 1348

### PUBLICATION

#### Safety management in outpatient cancer chemotherapy

A. Tadashi, Y. Baba, O. Shimoki, Y. Minakawa, M. Takahashi, I. Akasaka. Iwate Prefectural Kuji Hospital, Surgery, Kuji, Japan

**Introduction:** The advances and greater specialization of medical technologies and the increasing number of elderly people are all factors in the occurrence of medical adverse events. However, a simple mistake can lead to a fatal accident as time. In our hospital, if an accident was occurred, the risk-manager concerned in these events has to present the detailed analysis of them by the method of pm-SHEL model in immediate meeting of safety management. Prompt measures should be taken in the meeting to prevent similar events and the meeting report is notified in the whole hospital within few days. As for the cancer patients in particular, there is a marked decline in the personal immunity, compared with general patients. In addition to that, they are in the high risk situation because of strong side effects of cancer drugs, large invasions with wide lymphnodes dissection or dangerous examinations. Therefore, greater efforts are now demanded in the medical safety management for cancer patients than ever before. Thus now improved safety management for outpatient cancer chemotherapy is introduced.

This procedure of outpatient cancer chemotherapy is recently revised, and chemotherapies are performed with the following 8 rules in order to prevent