

concentration ratio was 959. Cytotoxic concentrations of  $>0.1 \mu\text{mol/L}$  were detected in peritoneal fluid for a median period of 4 days (1–4) after HIPEC. **Conclusions:** Cyto-reductive surgery followed by HIPEC with paclitaxel seems feasible in stage III ovarian cancer patients. HIPEC with paclitaxel is associated with a highly advantageous pharmacokinetic profile. Locoregional drug concentrations are in the micromolar range rather than in the nanomolar range as for plasma levels after intravenous administration, while cytotoxic drug levels are maintained in the peritoneal cavity for several days after HIPEC.

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POSTER

#### Pharmacokinetics of trabectedin in women with recurrent ovarian cancer

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**Background:** Trabectedin (Yondelis®, ET-743) is an anticancer compound that has shown clinical activity in soft tissue sarcoma (STS), ovarian, prostate and breast cancer. Pharmacokinetics (PK) of trabectedin has been well defined in patients with STS and in other solid tumours during the Phase I and II program. This report describes the PK behaviour of trabectedin in women with platinum-sensitive, recurrent ovarian cancer (ROC) included in a Phase II study.

**Methods:** Adult women with ROC were randomised to receive trabectedin as 1.5 mg/m<sup>2</sup> over 24 hr infusion (schedule A) or 1.3 mg/m<sup>2</sup> over 3 hr infusion (schedule B) both every 3 weeks. All patients received dexamethasone premedication. Fourteen plasma samples were obtained within 168 hr after starting the first infusion. An LC/MS/MS assay was used to measure trabectedin in plasma. PK parameters were estimated by standard noncompartmental methods.

**Results:** The PK of trabectedin was characterised in 18 patients (11 schedule A, 7 schedule B) with adequate renal and hepatic function, and a median age of 58 y (range 41–72 y). Mean (SD) C<sub>max</sub> and AUC<sub>inf</sub> were 1.4 (0.7) ng/ml and 59.7 (27.2) ng·hr/ml for schedule A and 12.1 (6.4) and 73.6 (41.7) for schedule B. Mean (SD) Cl and V<sub>ss</sub> were 47.4 (12.2) l/hr and 3848 (2319) l for schedule A and 38.2 (16.2) and 2698 (1423) for schedule B. Half-life was 95.8 (46.3) hr for schedule A and 96.1 (45.4) for schedule B. Interpatient variability was moderate/high, with variation coefficients ranging from 26% to 60%. Patients with grade 3–4 neutropenia during cycle 1 had longer half-lives than patients with grade 0–2. Patients with grade 3–4 ALT increases had higher C<sub>max</sub> than patients with grade 0–2. Response rates (RR) were 44% and 36% in patients with (n=18) and without PK (n=89) respectively. Half-lives in responding patients showed a trend to be longer than those in nonresponders. Results about PK/PD relationships should be interpreted considering the low sample size. PK results with schedule A matched closely those from a prior study in STS patients [C<sub>max</sub> = 1.22 (0.48), AUC<sub>inf</sub> = 65.0 (37.8), half-life = 138.3 (109.2)]. Mean C<sub>max</sub> in schedule B appeared higher than that in a prior Phase I trial [C<sub>max</sub> = 6.41 (SD = 1.49; n=6)].

**Conclusions:** PK characteristics of trabectedin in patients with ROC are in line with those observed in patients with other malignancies, showing a long terminal half-life, wide distribution, moderate total body clearance and moderate/high interpatient variability.

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POSTER

#### A protective role of magnesium salt supplementation against anaemia induced by paclitaxel and cisplatin in ovarian cancer (OC) patients

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**Background:** Paclitaxel and cisplatin are both well accepted drugs used in the treatment of ovarian cancer (OC) and anemia appears to be one of side effects. Cisplatin is a culprit of anemia by erythropoietin deficiency. We assessed the endogenous erythropoietin concentrations and other red blood cells parameters in OC patients given chemotherapy with magnesium salt supplementation vs. placebo.

**Patients and Methods:** A double-blind, placebo-controlled, randomised study conducted where magnesium sulphate was administered at a dose of 5 g as an iv infusion before each course of chemotherapy with PP (paclitaxel 135 mg/m<sup>2</sup> over 24 h infusion plus cisplatin 75 mg/m<sup>2</sup>) every 3 weeks. Magnesium subcarbonate continuation at a dose of 500 mg given three times daily p.o. among courses. We performed analysis of serum concentrations of erythropoietin, haemoglobin and magnesium before treatment and before sixth course of chemotherapy.

**Results:** Between February 2003 and January 2006, 40 OC patients were enrolled. None of the patients received recombinant human erythropoietin or red blood cell transfusion. Haemoglobin levels decreased from  $12.07 \pm 1.03 \text{ g/dl}$  (mean  $\pm$  SE) (control  $11.75 \pm 1.03 \text{ g/dl}$ ;  $p=0.344$ ) before treatment to  $11.10 \pm 1.17 \text{ g/dl}$  (control  $10.04 \pm 1.17$ ;  $p=0.009$ ) before sixth cycles in study group. Erythropoietin serum concentrations weren't changed significantly in both groups. Mg serum concentrations decreased significantly from  $2.12 \pm 0.10 \text{ mg/dl}$  to  $1.63 \pm 0.19 \text{ mg/dl}$  before sixth cycles ( $p<0.0001$ ) in placebo group.

**Conclusions:** Our results indicate that magnesium salt supplementation during chemotherapy may decrease anemia independently of erythropoietin serum changes.

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POSTER

#### Tumor advancement in uterine endometrial cancers patients

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**Objective:** The aim of this study was to investigate the expression of ephrinB2 and EphB4 in uterine endometrial cancers to analyze the ephrinB2/EphB4 functions against clinical backgrounds.

**Methods:** In 53 uterine endometrial cancers and 18 normal endometrium tissue samples immunohistochemistry and real-time RT-PCR to determine the histoscores and messenger RNA (mRNA) levels of ephrinB2 and EphB4, respectively, were carried out. Patient prognoses were analyzed with a 5-years survival rate.

**Results:** The localization of ephrinB2 and EphB4 was dominantly in the cancer cells of uterine endometrial cancer of all investigated cases. EphrinB2 and EphB4 histoscores were highly correlated with ephrinB2 and EphB4 mRNA levels, respectively ( $P<0.01$ ). Both the histoscores and mRNA levels of ephrinB2 and EphB4 significantly increased with clinical stages ( $I<II<III$ ,  $P<0.05$ ), dedifferentiation ( $G1<G2<G3$ ,  $P<0.01$ ) and myometrial invasion ( $A<B<C$ ,  $P<0.01$  for ephrinB2 and  $P<0.05$  for EphB4) in uterine endometrial cancers. The 5-years survival rates of the 24 patients with high ephrinB2 and EphB4 expression were poor (57% and 63% respectively), for the 29 patients with low ephrinB2 and EphB4 expression, they were significantly higher (83% and 84%, respectively).

**Conclusions:** EphrinB2 and EphB4 were overexpressed during the tumor advancement as dedifferentiation and myometrial invasion. EphrinB2/EphB4 might work on tumor advancement and could be recognized as a novel prognostic indicator for uterine endometrial cancers.

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POSTER

#### Pelvic node control in locally advanced uterine cervical cancer treated with concurrent chemoradiotherapy

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**Background:** Several investigators recommend surgical debulking of enlarged lymph nodes prior to definitive radiotherapy for patients with locoregionally advanced uterine cervical cancer. The purpose of this study was to evaluate pelvic node control in patients with cervical cancer treated with concurrent chemoradiotherapy (CCRT) without surgical resection.

**Material and Methods:** Ninety-nine patients with uterine cervical squamous cell carcinoma treated with CCRT were analyzed. The stage distributions were: IB2 3; IIA 2; IIB 50; IIIA 1; IIIB 42; and IVA 1. Cervical tumor diameter and pelvic node status were assessed by MRI. The median maximum tumor diameter was 58 mm (range, 36–86 mm). Thirty-five patients had positive pelvic nodes ( $\geq 10 \text{ mm}$ , in the shortest diameter). The largest positive node diameter ranged from 10–50 mm (median, 18 mm). All patients received CDDP (20 mg/m<sup>2</sup> for 5 days every 21 days), pelvic external beam RT (PERT), and high-dose-rate intracavitary brachytherapy (HDR-ICBT). The planned RT schedule consisted of PERT with 40 Gy/20 fractions followed by HDR-ICBT with 18–24 Gy/3–4 fractions and PERT with 10 Gy/5 fractions using a midline block. Thirty-one of the thirty-five node positive patients received boost irradiation (6–10 Gy/3–5 fractions) to the involved nodes. The irradiation dose from HDR-ICBT to the pelvic nodes was estimated at a point 6 cm lateral to the midline at the level of the vaginal fornix. Doses of ERT and HDR-ICBT were simply summed and used for the pelvic node dose-response analysis. The median total dose was 60 Gy (range, 52–64 Gy) for positive nodes and 54 Gy (range, 51–55 Gy) for negative nodes. The median follow-up of the 81 surviving patients was 50 months (range, 8–102 months).

**Results:** Four-year overall survival (OAS), pelvic control (PC), and distant metastasis-free (DMF) rates for all 99 patients were 81%, 91%, and 80%, respectively. Four-year OAS, PC, and DMF rates for node-positive/node-negative patients were 62%/91% ( $P=0.002$ ), 82%/95% ( $P=0.08$ ), and