

continuously assumed at the planned dose of 4 g/daily, or at the maximum tolerated dose, 3 g in 2 pts and 2 g in the others. More than 50% reduction of tumor mass (PR) was obtained in 3 pts, stable disease in 3 and progressive disease in 1. The toxicity of EAP + MIT was mild to moderate and only 2 patients experienced a grade 3 hematologic toxicity (WHO criteria). The 3 pts who had partial response survived 12, 48+, and 14 months, respectively; the pts who showed stable disease survived 8+, 9 and 24 months, respectively. The association of MIT to EAP chemotherapy scheme appears to be feasible with acceptable toxicity.

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PUBLICATION

# **PLATINUM-DNA ADDUCTS IN PERIPHERAL BLOOD LEUKOCYTES OF PATIENTS RECEIVING CISPLATIN- OR CARBOPLATIN-BASED CHEMOTHERAPY. CORRELATION WITH CISPLATIN *IN VITRO* TREATMENT AND WITH CLINICAL ACTIVITY**

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Platinum (Pt)-DNA adducts by means of Inductively Coupled Plasma Mass Spectroscopy (ICPMS), were determined in peripheral blood leukocytes of 46 patients treated with Cisplatin- or Carboplatin-based chemotherapy, before the beginning of chemotherapy, and at 1 h and 24 h after the end of Cisplatin (or Carboplatin) infusion on each 1st and 3rd chemotherapy cycle. In basal samples Pt-DNA adducts were never detected. In 33 patients no correlation was found between the response to chemotherapy and the Pt-DNA adducts levels. In 20 patients, Pt-DNA adducts were determined in peripheral blood leukocytes withdrawn before the beginning of chemotherapy and incubated *in vitro* with Cisplatin (15  $\mu\text{g}/\text{ml}$  in RPMI medium). In these leukocytes median Pt-DNA adducts was 8.64 fmol/ $\mu\text{g}$  of DNA (range = 1.6–25.4). A significant correlation was found between adducts formation *in vitro* and *in vivo* at the 1 h after chemotherapy time point ( $r = 0.664$ ;  $P = 0.0113$ ); it was lost at the 24 h after chemotherapy time point ( $r = 0.241$ ;  $P = 0.305$ ). No correlation was found between *in vitro* adducts formation and response.

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PUBLICATION

# **FEASIBILITY OF 5-FU THERAPEUTIC MONITORING**

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5-FU therapeutic monitoring was performed, in 26 patients with localized or disseminated epidermoid tumour of various origin, during 64 chemotherapy cycles containing 5-FU 1000 mg/m<sup>2</sup> in continuous infusion (J1–J5) and CDDP (100 mg/m<sup>2</sup> J1 or 20 mg/m<sup>2</sup>/J1–J5). Blood samples were collected daily (8 a.m., 4 p.m.). 5-FU HPLC analysis used the method of Christophidis. Dose reduction of 5-FU was programmed according to the method of R. Fety using the J1–J2 and the J1–J5 5-FU area under the curve (AUC). An average of 2 cycles was administered.

During the 1st cycle: J1–J2 5-FU AUC averaged 15751  $\mu\text{g l}^{-1} \text{h}^{-1} \pm 12309$  (3902–56620) confirming the great interpatient variability. In 4 patients J1–J2 5-FU AUC > 20000  $\mu\text{g l}^{-1} \text{h}^{-1}$  obliged to cancel chemotherapy at J3. J1–J5 5-FU AUC averaged 46161  $\mu\text{g l}^{-1} \text{h}^{-1} \pm 20020$  (18380–90200). We observed a 5-FU accumulation process, characterised by an increase of daily 5-FU AUC in 18 patients. 5-FU dose reduction was scheduled in 27 cases and necessitated a further decrease during the chemotherapy cycle in 9 cases. 5-FU monitoring allowed a reduction in the toxicity which were less frequent for the cycles with J1–J2 5-FU AUC < 20000  $\mu\text{g l}^{-1} \text{h}^{-1}$  or J1–J5 5-FU AUC < 30000  $\mu\text{g l}^{-1} \text{h}^{-1}$ . Fourteen objective responses were obtained with 2 complete responses. J1–J5 5-FU AUC did not differ between responders and non responders.

These time consuming techniques must find their role during more prolonged chemotherapy.

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PUBLICATION

# **CISPLATIN, VINORELBINE AND TAXOL PLUS G-CSF AS SALVAGE CHEMOTHERAPY IN PATIENTS WITH REFRACTORY SOLID TUMORS: PRELIMINARY RESULTS**

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A frequent problem in clinical oncology is tumor resistance to chemotherapy. Fifty eight patients with different malignancies (breast: 9, NSCLC: 13, SCLC: 4, colorectal: 7, bladder: 3, head and neck: 5, ovarian: 2, cervical: 2, gall bladder: 1, renal: 1 and 1 unknown primary site) entered a prospective study and received CDDP 80 mg/m<sup>2</sup> d1, Taxol 150 mg/m<sup>2</sup> and Vinorelbine 20 mg/m<sup>2</sup> d2 in a 3-weekly schedule to evaluate the efficacy and toxicity of the regimen. All patients were supported by G-CSF (5  $\mu\text{g}/\text{kg}$ ) sc/d, d5–d15. Thirty patients were men and 18 were women. Mean age of patients was 62 years. All patients had received 1st line treatment for advanced disease without response whereas 2nd and/or 3rd line treatment has failed in 16 of them. All women suffering from breast cancer were characterized as anthracycline resistant, while all patients with lung cancer were CDDP- and VP-16-resistant. Thirty two patients received more than 2 cycles of treatment and were evaluable for response. Twelve patients (38%) presented a partial response. Fourteen patients (43%) presented stabilization of disease or minor response while the remaining 6 pts (19%) had progressive disease. Among responders 3 pts had NSCLC, 1 SCLC, 5 breast cancer, 1 ovarian cancer, 1 colon cancer and 1 bladder cancer. The main toxicity of the regimen was myelosuppression and occurred between d8–d17. Most patients had sufficient recovery of blood counts to begin at time the next cycle. A granulocyte count of <1.000/ $\mu\text{L}$  occurred in 10 of 116 (9%) courses, but 3 patients required hospitalization for neutropenic fever and 1 of them died from sepsis. Other toxicities were mild. These preliminary results indicate significant efficacy of the regimen, but additional follow up period and patients are required to obtain more accurate conclusions.

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PUBLICATION

# **CISPLATIN-PACLITAXEL WEEKLY ADMINISTRATION. A DOSE-FINDING STUDY**

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To determine the MTDs of both paclitaxel and cisplatin when given in a weekly schedule, we have conducted this phase I study. To date, 15 patients with different neoplasms (6 lung, 4 ovarian, 5 others) have been treated, for a total of 93 courses. The starting doses of cisplatin and paclitaxel were 25 mg/m<sup>2</sup>/week and 45 mg/m<sup>2</sup>/week respectively. Dosage of the two drugs was alternately escalated by 5 mg for CDDP and 10 mg for paclitaxel until dose limiting toxicity occurred in one third or more patients of each cohort during the first 6 courses. At the 4th escalation (CDDP = 30 mg/m<sup>2</sup>/week and paclitaxel 65 mg/m<sup>2</sup>/week) 2/6 patients experienced DLT (in both cases it was neutropenia). Neurotoxicity was very frequent. It occurred in 7/15 patients and in 3 was of grade 2 WHO. Four patients complained of painful, although reversible, cramps. Mucositis and diarrhea were also frequent but mild. They occurred in 10 and 7 patients, respectively (only one patient had grade 3 for diarrhea). In conclusion, neutropenia seems to be the DLT when CDDP and paclitaxel are administered together in a weekly schedule. The MTDs are CDDP = 30 mg/m<sup>2</sup> and paclitaxel = 55 mg/m<sup>2</sup> in absence of hematopoietic growth factors. A further evaluation of the level 4 (CDDP = 30 mg/m<sup>2</sup> and paclitaxel = 65 mg/m<sup>2</sup>) using G-CSF is ongoing.

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PUBLICATION

# **ERYTHROCYTES AND THE DISTRIBUTION OF MITOMYCIN C (MMC)**

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The E is an important component of whole blood and can act as a transporter and bioreactor. We have recently described an instrument allowing the improved separation and simultaneous analysis of E and plasma (P) fractions †.

We report a study of these fractions in 6 patients who received MMC 6 mg m<sup>-2</sup> (9 to 12 mg) as an intravenous bolus for the treatment of