in the disease-free survival time (23.7 vs. 24.6 months). There was no trend of association with grading or tumour stage detectable. In conclusion we propose that testing of HER2 overexpression should be performed not only in breast but also in ovarian cancer. These patients should be considered for an additional treatment with Herceptin, but further investigation to confirm our results is needed.

913 POSTER DISCUSSION 1

Prognostic impact of tumor anemia in early-stage epithelial ovarian cancer

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Purpose: Tumor anemia is common in malignant tumors and adversely influences outcome of patients with various neoplasms. Pretreatment serum hemoglobin (Hb) was assessed to determine its effect on the survival of patients with epithelial ovarian cancer.

Methods: We conducted a retrospective, multicentric analysis based on the data of 553 patients with histologically proven epithelial ovarian cancer. Serum Hb levels were determined 24 to 48 hours before surgery and patients with serum Hb values below 12 g/dl were considered anemic. Data analysis included univariate and multiple Cox models.

Results: Tumor anemia was present in 143 (25.9%) patients before surgery. The overall survival probability was 33.6 and 47.0% in patients with pretreatment Hb levels <12 g/dl and >12 g/dl, respectively (Log rank p = 0.001). In a multivariate Cox model, pretreatment Hb values proved to be an independent prognostic factor for patients with FIGO state I–II epithelial ovarian cancer (n = 203), with survival probabilities of 61.2 and 73.7% in anemic and non-anemic patients, respectively. In contrast, pretreatment anemia failed to attain significance in patients with stage III–IV disease (n = 350).

Conclusion: Tumor anemia defined as pretreatment Hb values below 12 g/dl may indicate patients with early stage epithelial ovarian cancer, who are at increased risk of relapse.

914 POSTER DISCUSSION 1

'Reverse-schedule' topotecan and carboplatin in relapsed ovarian cancer: A phase I/II dose-ranging study

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Topotecan (TPT) is a topoisomerase 1 inhibitor which is active in relapsed ovarian cancer. There is a pharmacokinetic and pharmacodynamic interaction between TPT and both carboplatin [C] and cisplatin. When TPT is combined with platinum, the timing of platinum dosing with respect to TPT determines the maximum dose of TPT which can be administered. When C was given on day 1 with TPT on days 1 to 5, myelosuppression at the first dose level precluded further escalation (Simpson et al, 1998). In this reversed-schedule trial, patients (pts) with relapsed ovarian cancer received TPT on days 1–5 with C on day 5 after TPT, repeated every 21 days. C dose was calculated by the Calvert formula using EDTA clearance, and blood counts were monitored weekly. Doses of C and then TPT were escalated in successive cohorts; the first two dose levels are evaluable for toxicity. Four pts received 20 cycles of TPT 0.5 mg/m^2/day with C at AUC4, then C was escalated to AUC5 in the second cohort of 4 pts (16 cycles to date). There was no Grade 4 myelosuppression, and non-haematological toxicity was modest. Only 2 cycles were delayed, and no dose modifications were required. Formal assessment of response by CT scan is awaited, but the combination appears to be active with a significant fall in Ca125 in 5/8 patients. Accrual continues at the third dose level, TPT 0.75 mg/m^2/day with C at AUC5.

915 POSTER DISCUSSION 1

A phase II trial of concomitant brachytherapy and chemotherapy with docetaxel and cisplatinum combined with surgery and external radiotherapy for locally advanced uterine carcinoma

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Purpose: This study evaluated the feasibility, efficacy and toxicity of concurrent radio chemotherapy for locally advanced carcinoma of the cervix.

Material & Methods: 29 patients with various stages of cervical carcinoma of the uterus (7 St. IIA, 17 St. IIB, 5 St. IIIA) were treated from July 1996 untill December 1998. All patients received two Cs-137 Selectron MDR applications, 1 week apart. The dose calculated to point A for each implant was 25 Gy. Chemotherapy consisting of continuous docetaxel (50 mg m^{-2}) and cisplatin (50 mg m^{-2}) infusion, was given simultaneously with intracavitary, pelvic lymphadenectomy and pelvic radiotherapy.

Results: 24/29 patients were treated by wertheim hysterectomy of whom, 9 had negative lymph nodes and resection margins. Full dose external radiotherapy was given in the remaining 5 patients who were deemed ineligible for surgery, because of poor response. Overall, 25/29 (86%) were disease free at 19 months mean follow-up time. The most frequent acute side effects were nausea and vomiting. Leucopenia was seen in 3 patients and was responsible for delayed surgery in 2 cases. Concerning late effects, 3 patients developed grade 2 intestinal sequelae and one hemorrhagic cyctitis appeared in a patient suffering from sclerodermia.

Conclusion: Synchronous brachytherapy and chemotherapy with taxoids and platinum compounds is well tolerated and effective. It can cause downstaging of the tumour before definitive local treatment (surgery or external radiotherapy), in patients with locally advanced carcinoma of the cervix.

916 POSTER DISCUSSION 2*

Mortality from cervical cancer and endometrial cancer in East and West Germany from 1991 to 1997

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Purpose: Since 1991 the coding procedures for the death certificates according to ICD-9 are unified in East and West Germany (EG, WG). In order to monitor the trends of the mortality rates (MR) for cervical cancer (ICD9-180) (CxCa) and for malignancies of the uterus (ICD9-179 + 182) the development in both parts of Germany after the reunification was compared.

Methods: The raw data were provided by the Statistisches Bundesamt. Differences mortality between EG and WG were analysed, of the age-standardized rates (aMR) calculated in 5-year age groups (MR) and compared.

Results: From 1991 to 1997 a constant decrease of the aMR of CxCa can be observed in EG and WG. The aMR EnCa are decreasing until 1995 and remain stable until 1997. The aMR are higher in EG than in WG for the whole period; the trends are similar in WG and in EG. For CxCa no significant differences of the MR can be seen in different age groups between 1991 and 1997; for EnCa a decrease of the MR in the over 75 years old in 1991 cannot be found in 1997. The median age of death compared between 1991 and 1996 has been nearly unchanged (CxCa: 1991: 64.6 y; 1996: 65.3 y; EnCa: 1991: 73.5 y; 1996: 73.3 y).

Conclusion: The aMR of CxCa is decreasing from 1991 to 1997 while the decrease of the aMR of EnCa ends in 1995. Mortality of EnCa and CxCa is consistently higher in EG. No 5-year age group can be identified, that shows significant differences in the MR in 1997 compared to 1991. The underlying reasons for the differences of MR will be analysed in future studies.

917 POSTER DISCUSSION 2*

Combined chemo-radiotherapy for locally advanced cancer of the cervix: A review of randomized clinical trials

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Purposes: To investigate the role of chemotherapy added to radiotherapy for locally advanced cancer of the cervix.

* Poster Discussion 2 will be held on Thursday 16 September 1999

Methods: A review was performed of the results from 21 randomized clinical trials listed in the MEDLINE computer data base from 1983 to 1999.

Results: Although neoadjuvant chemotherapy had a high response rate, ten cisplatin-based neodjuvant chemotherapy trials showed no survival benefit over radiation therapy alone. Among nine concurrent chemoradiotherapy trials, three small trials with cisplatin-based chemotherapy and one trial with 5-Fluorouracil failed to demonstrate a survival benefit over radiation therapy alone. However, two trials with hydroxyurea and three large trials with cisplatin-based regimen showed improvement in patient survival. Two GOG studies also confirmed that a cisplatin-based regimen was superior to hydroyxurea for survival with less toxicity.

Conclusion: The data from these randomized trials clearly do not support the use of neoadjuvant chemotherapy prior to definitive irradiation. However, the results of concurrent cisplatin-based chemotherapy and radiotherapy are promising for locally advanced cancer of the cervix.

918 POSTER DISCUSSION 2*

Brachytherapy (BT) in vagina – Cervix clear cell adenocarcinoma (CCA)

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Purpose: BT possibilities in conservative approach for young patients (pts) with CCA. Population: 53 pts, FIGO stages rate: I: 34%, II: 35%, III: 17%, IV: 9%. DES exposure: yes: 50%, no: 30%, unknown 20%. Associated malformation +/– adenosis: 60%.

Treatment: radiosurgical treatment combining conservative surgery (pelvic lymphadenectomy + ovarian transposition), ext. beam irradiation (in case of N+ and/or extended disease); BT (mould applicator, miniaturized sources, remote afterloading machine, computerized dosimetry).

Results: At 5 years: total survival 79.8%, DFS 72.2%. DFS according to: * Nodes: N^-: 96.1%, N^+: 60.8%, * Recurrence: no: 100%, yes: 50%, * Stages: I: 100%, II: 92%, III: 40%, IV: 4%. Late complication rate: Gr 1: 25%, Gr 2: 20%, Gr 3: 15%.

5 pregnancies were observed giving birth to 2 children.

Conclusion: Combined radiosurgical treatment can be successfull in CCA when starting with conservative surgery followed by a well personalized BT.

919 POSTER DISCUSSION 2*

Vinorelbine (N) in combination with cisplatin (P) in South African patients with advanced cervical carcinoma

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Cervix carcinoma is among the most common cancer in south african women, and frequently diagnosed at advanced stage at presentation. Cisplatin is the most active drag in this disease. Vinorelbine (Navelbine) a new vinca alkaloid has demonstrated a significant activity as a single agent in the treatment of advanced squamous cervical carcinoma

Purpose: assess the efficacy of NP in terms of response rate and the tolerance.

Methods: eligible patients had histologically confirmed stage III or IV cervical squamous carcinoma; previously untreated; age < 75 yrs; WHO PS < 2, adequate haematopoietic, liver, renal functions and written informed consent. The NP regimen was: vinorelbine 30 mg/m^2 on day 1 & 8, cisplatin 100 mg/m^2 on day 1, every 4 weeks. Assessments were performed by MRI.

Results: Between 7/04/96 and 7/25/98 thirty-six patients were enrolled in this study, median age 46 years (range 26 to 72 ys). 29 patients were evaluable for toxicity; 131 courses of chemotherapy were administered; median 4 range (1 to 6), WHO grade 3 neutropenia, anaemia occurred in 2.5%, and 3.4% of cycle respectively. Only 1.7% neutropenic sepsis was observed. There was 21% WHO grade 3N/V. 28 patients were evaluable for response, the objective clinical response was 52.7%, CR: 8.3%, PR: 44.7%, NC: (19.4%). 24 patients were evaluated by MRI, of which OR rate was increased to 62.5% and CRs were not confirmed.

Conclusion: NP regimen has a significant activity in cervical cancer, the accrual was closed and the final results will be presented at this meeting.

920 POSTER DISCUSSION 2*

Concomitant radiotherapy and chemotherapy given by protracted intravenous infusion as preoperative treatment in locally advanced cervical cancer

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Purpose: In order to achieve operability in patients (pts) with locally advanced cervical cancer (LACC) stage IIB–IIIB, on January 1997 we started a prospective phase II study with concomitant radio-chemotherapy as neoadjuvant treatment.

Methods: Twenty-five pts affected with squamous cervical cancer were treated with protracted intravenous infusion (P.I.V.I.) 5FU 200 mg/sqm and CDDP 5 mg/sqm given simultaneously with radiation therapy delivered at 1.5 Gy twice a day (total dose 50 Gy) followed by surgical treatment when feasible. In case of inoperability a boost of 20–26 Gy on tumor bed were delivered. Pts characteristics were: median age 55 (r 34–75), PS 0/1 = 20/5, FIGO stage IIB 21 pts, IIIA 1 pt, and IIIB 3 pts.

Results: All pts are evaluable for toxicity and activity. No case of WHO G3–G4 haematological toxicity occurred. Non haematological toxicity was: G3 diarrhea in 5 pts (20%), G3 emesis in 1 pt (4%) and one case of G3 cardiotoxicity that required hospitalisation; severe proctitis was reported in one case (4%). The overall clinical response is 60%: CR 10 pts (40%), PR 5 pts (20%), NC 8 pts (32%) and PD 2 pts (8%). Out of the 25 treated pts, sixteen underwent surgical treatment: 3 Piver II and 13 Piver III; 14 pts had also a sistematic pelvic lymphadenectomy. A pathological complete response was found in 4/16 pts (25%), while in 6/16 pts (37.5%) only neoplastic microfoci were detected. The remaining 6 pts (37.5%) had a residual macroscopic disease.

Conclusion: P.I.V.I. FU/CDDP with concomitant radiation therapy is a well tolerated regimen in LACC, allowing subsequent radical surgery in a high percentage of cases. A longest follow up is necessary to better define time to progression and overall survival.

921 POSTER DISCUSSION 2*

Recurrent endometrial cancer (EC) after surgery alone: Results of salvage radiotherapy (RT)

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Purpose: Our aim was to assess the long term results of salvage RT in previously not irradiated EC patients who developed local recurrence after surgery only and to evaluate the impact of patient- and treatment-related factors on treatment efficacy.

Methods: We performed a detailed retrospective analysis of 73 EC patients given RT for local recurrence after the initial surgery. The mean patient age was 63 years. Median time to recurrence was 11 months (range, 1–19 months). Perez modification of the FIGO staging system for primary vaginal carcinoma was employed. There were 5 (7%) stage I patients, 43 (59%) stage II patients, and 25 (34%) stage III patients. 44 patients (60%) received both external beam RT (EBRT) and endovaginal brachytherapy (BRT), 17 (23%) received only BRT, and 12 (17%) – only EBRT. The mean total physical RT dose was 75.9 Gy (range, 8–130 Gy), and the mean normalized total dose (NTD) calculated on the base of the linear-quadratic model was 86.6 Gy (range, 8.5–171.9 Gy). Median follow-up for alive patients was 8.8 years (range, 3–21 years). Uni- and multifactorial analyses were used to evaluate the impact of patient-, tumor- and therapy-related factors on the treatment outcome.

Results: 3- and 5-year overall survival rates were 33% and 25%, respectively. In the unifactorial analysis, lower stage of recurrent disease ($p = 0.000$), combined EBRT and BRT ($p = 0.027$), higher total RT dose ($p = 0.031$) and higher NTD ($p = 0.006$) were significantly correlated with better survival. In the multifactorial Cox test, only stage of recurrent disease ($p = 0.000$) and high total RT dose ($p = 0.047$) were independently correlated with better survival.

Conclusion: Our study shows a limited efficacy of RT in EC patients with local failure after previous surgery. Factors determining the treatment outcome include advancement of the tumor at relapse and RT dose.

*Poster Discussion 2 will be held on Thursday 16 September 1999