8031 POSTER

Outcome and pronostic factors in malignant Mixed Müllerian Tumours and endometrial stromal sarcomas: a rare cancer network study

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Background: Uterine sarcomas are rare malignant tumors with poor prognosis. The aim of this study was to retrospectively analyse and assess the outcome and prognostic factors of patients with malignant mixed müllerian tumors (MMT) and endometrial stromal sarcomas (ESS).
Materials and Methods: Between 1983 and 2007, 150 patients with MMT and ESS were treated with postoperative external beam radiotherapy (RT) and/or brachytherapy in 10 institutions of the Rare Cancer Network. Mean age at diagnostic was 61.7 years. The median follow-up was 55 months (6−308 months). MMT and ESS histology were found in 72 and 28% respectively. 78 patients presented with FIGO stage I, 15 with FIGO stage II, 43 with FIGO stage III, 4 with FIGO stage IV and the stage was unknown in 10 patients. 43 % of the ESS were low grade (LG) and 43 % high grade (HG) while 14% had unclear grade. 130 women received external beam radiotherapy (RT), 112 a high dose rate brachytherapy (HDR) and 29 an adjuvant chemotherapy.
Results: A complete response was achieved in 83% of the cases. The 2- and 5-years overall survival rates were 76.2 and 49.4% and the disease-specific survival rates were 62.6 and 37.1%, respectively. The 5 years local recurrence free survival rates for the ESS and MMT were 63.6 and 59.5 % respectively. The 5 year local recurrence free survival rates for the LG vs HG ESS were 90 and 40 % respectively. In total, 52 patients developed a systematic relapse: 61% of the women with a HG ESS and 31% with MMT. There was a significant difference in overall survival for those who underwent lymphadenectomy compared to those who did not ($p = 0.04$). A multivariate analysis revealed that postmenopausal status ($p = 0.006$), age ($p = 0.04$) and advanced stage ($p = 0.02$) has an independent adverse effect on the disease free survival. The use of adjuvant chemotherapy did not correlate with the survival rate or the appearance of distant recurrence. As well no correlation was seen between the use of brachytherapy and local recurrence.
Conclusions: Patients with LG ESS had an excellent prognosis, while HG ESS seems to be very aggressive disease with frequent appearance of distant recurrence. The status of adjuvant RT in ESS rest unclear. Younger age, premenopausal status and early tumor stage seems to be associated with a longer disease free survival.

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Cytoreductive surgery (peritonectomy procedures) combined with hyperthermic intraperitoneal chemotherapy (HIPEC) in the treatment of diffuse peritoneal carcinomatosis from ovarian cancer

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Introduction: Peritoneal carcinomatosis is a typical way of cancer spread in patients with primary advanced or recurrent epithelial ovarian cancers. Because of scarce data from larger series and nonhomogeneous selection criteria, further information is needed on peritonectomy with hyperthermic intraperitoneal chemotherapy (HIPEC) in managing patients with ovarian peritoneal carcinomatosis.
Methods: The study was an open, prospective, single-center nonrandomized phase 2 trial conducted between November 2000 and July 2008. Patients with primary advanced or recurrent ovarian cancer (TNM-FIGO stages IIIc-IV) with peritoneal carcinomatosis were considered eligible. The inclusion criteria were: age younger than 75 yrs; histologically or cytologically confirmed diagnosis; performance status 0−2 (WHO); adequate cardiac, renal, hepatic, and bone marrow function; resectable disease and informed written consent. Treatment plan envisaged extensive surgical cytoreduction aimed at removing all visible disease plus immediate HIPEC and adjuvant systemic chemotherapy according to patient's conditions. 57 patients were enrolled; 28 underwent primary and 29 secondary cytoreduction. At the end of surgery, HIPEC was given with the closed technique.
Results: The overall mean Sugarbaker peritoneal cancer index was 14.9 (range 6−33). In 91% of the patients debulking achieved optimal cytoreduction (CC-score 0−1), whereas in 9% it left macroscopic residual disease (CC-2 or CC-3). Major complications developed in 21.3% of the patients and in-hospital mortality was 5.3%. Assessment at discharge showed most patients (95.6%) had a satisfactory performance status (equal to or less than 2). The mean overall survival was 30.4 months, median survival was 24 months, and mean disease-free survival was 27.4 months. Five-year survival was 16.7%. Univariate and multivariate analyses identified CC-score as main factor capable of independently influencing survival.
Conclusions: Peritonectomy procedures combined with HIPEC provide a promising approach for long term survival in patients with diffuse peritoneal ovarian carcinomatosis. They appear effective both for primary and secondary surgical cytoreduction. The rate of adequate cytoreduction is high. Morbidity and mortality are acceptable. The role of neoadjuvant treatment in primary cytoreduction remains to be investigated in prospective trials.

8033 POSTER

Usefulness of third-line chemotherapy for women with recurrent ovarian, fallopian tube, and primary peritoneal cancer who receive platinum/taxane regimens as first-line therapy

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Background: Limited information is available regarding the usefulness of third-line chemotherapy for recurrent ovarian, fallopian tube, and primary peritoneal cancer treated with platinum-taxane regimens as first-line therapy.
Patients and Methods: We retrospectively reviewed the medical records of women with ovarian, fallopian tube, and primary peritoneal cancer who were treated between 1999 and 2005 to investigate the relations of clinicopathological factors to important clinical endpoints such as the response rate (RR), time to progression (TTP) and overall survival (OS) after third-line chemotherapy.
Results: A total of 172 patients received first-line platinum/taxane regimens during the study period, among whom 111 had disease progression after first-line chemotherapy. Eighty-one of these 111 patients received second-line chemotherapy, and 73 had disease progression. Fifty-four of these 73 patients received third-line chemotherapy. The RR to third-line chemotherapy was 40.7% (95% CI; 27.6−53.8%). The median TTP was 4.4 months (range, 0−19.5 months), and the median OS was 10.4 months (range, 1.5−44.3 months). Performance status (PS) and Primary drug-free interval (DFI) were independent predictive factor for RR of third-line chemotherapy ($P = 0.04$ and $P = 0.009$). PS and DFI were also independent predictive factor for TTP and OS on multivariate analysis ($P = 0.006$, $P = 0.005$ and $P = 0.01$, $P = 0.004$, respectively).
Conclusions: PS and Primary DFI are useful predictors of the response to third-line chemotherapy in women with recurrent ovarian, fallopian tube, and primary peritoneal cancer. In this setting, however both of these variables are subject to several well-established potential biases and limitations; further prospective studies are thus needed.

8034 POSTER

Importance of external beam parametrial boost and HDR interstitial implant in locally-advanced cervix cancer with parametrial extension – an interim report

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Background: Parametrial boost (PMB) in locally advanced cervix cancer is an under-explored area in cervix cancer radiotherapy, as also the clinical impact of template guided HDR interstitial implant. This prospective randomized single institute pilot study aims to evaluate the outcome of PMB with individually customized central shield in advanced cervix cancer. Tumor response, recurrence pattern, disease free survival and OAR toxicity are the study end points.
Materials and Methods: From February 2007 to January 2008, 53 patients of squamous cell carcinoma of cervix of stages IIB or IIIB were randomly assigned, on completion of whole pelvic chemoradiotherapy (50 Gy in 25 fractions in 5 weeks plus concomitant weekly CDDP 30 mg/m^2) and CT based HDR interstitial brachytherapy with MUPIT template (18 Gy in 2 fractions over 2 weeks) into two arms - receiving additional external beam PMB (Study Arm; $n = 23$) and no PMB (Control Arm; $n = 30$). PMB was delivered to a dose of 9 Gy/5 fractions/1 week through AP-PA fields. Individual planning of parametrial boost fields accounted for

width of brachytherapy reference isodose - midline shield was customized accordingly. Individualized CT based planning was done for each insertion of brachytherapy. Dose received by 0.1 cc, 1 cc, and 2 cc volume of rectum, bladder and sigmoid were recorded. Total EDQ_2 for central disease were 77.76 Gy – for outer parametrium it was 70.8 Gy and 62 Gy respectively for those receiving PMB and not.
Results: Median duration of follow up was only 20 months. Complete response was in all patients in study arm and in 29/30 of control arm. Among complete responders, 3/23 in Study Arm and 12/30 of Control Arm suffered local recurrence in 24 months (P = 0.03) – median time to treatment failure was 14 months. Parametrial failure (confirmed by MRI scan with contrast) was in none of Study Arm (all 3 had central recurrence) and 10/20 of Control arm (P = 0.002). 1 each in both arms had distant failure. 2-year DFS was 19/23 (82.6%) with PMB (Study Arm) and 16/30 (53.3%) without PMB (P = 0.04). RTOG grade 3 rectal toxicity was in 1 in Study arm and none in Control arm. Grade 3 bladder toxicity was encountered in none of either arm.
Conclusions: There was hardly any work in world literature to analyze the impact of parametrial boost with individually customized central shield in locally advanced cervix cancer, where HDR brachytherapy is by way of interstitial implant. The initial results of this study – possibly the first one of its kind, justify this dose escalation in parametrial tissue as it significantly reduces incidence of parametrial failure and improves DFS without increased toxicity.

8035 POSTER

Tolerance of accelerated radiotherapy combined with chemotherapy in patients with advanced carcinoma of the uterine cervix

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Background: Carcinoma of the uterine cervix is the second most common gynaecological malignancy. The aim of our study is to evaluate the tolerance of the accelerated radiotherapy combined with chemotherapy in patients with advanced cervical cancer.
Material and Methods: 46 patients diagnosed with carcinoma of the uterine cervix clinical stage IIIB-IVA (FIGO), aged 25−65 (average 50), were treated in our department with accelerated radiotherapy combined with chemotherapy. Analysed were only women diagnosed with squamous cell carcinoma. Two models of accelerated radiotherapy with high-energy photon beams (20 MV) were used:
1. In patients with no periaortic lymph node metastases: external beam radiation therapy to the whole pelvis, two fractions a day, 1.3 Gy dose per fraction (at least 6 hours interval between fractions), total dose was 52 Gy. Midline shield was shaped according to the patient's anatomy and was introduced after 22 fractions.
2. In patients with periaortic lymph nodes involvement: external beam radiation therapy with extended fields including the periaortic nodes and the pelvis, two fractions a day, 1.2 Gy dose per fraction (at least 6 hours interval between fractions), total dose was 40.8 Gy (midline shield introduced after 26 fractions), then a boost to the pelvis − to the total dose of 52.8 Gy.

Concurrent chemotherapy with cisplatin was administered weekly at a dose of 40 mg/m^2.
After completion of the radiochemotherapy patients were treated with HDR brachytherapy in uterine cavity and vagina. Patients received a total dose of 30 Gy in uterine cavity and 40−48 Gy in vagina.
Results: Severe side-effects (grade III according to the EORTC/RTOG scale) concerning lower alimentary tract were observed in 20% of patients. Early reactions of the urinary bladder didn't exceed grade II toxicity (11%). Most patients developed I or II grade of haematological toxicity (WHO scale) – anaemia in 28% and low leucocyte count in 76% of patients. Severe haematological toxicity (grade III or IV) was observed in 17% of patients. 72% of patients received full planned dose of chemotherapy. In the analysed group a complete response was achieved by 65% of patients.
Conclusions: Accelerated radiotherapy combined with chemotherapy is a well-tolerated treatment, with an acceptable toxicity level, in patients with advanced carcinoma of the uterine cervix.

8036 POSTER

Role of endoarterial regional polychemotherapy in multimodality therapy of invasive cervix uteri cancer

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The aim of research: Comparing study of clinical instrumental and morphological parameters on the stage of multymodality therapy of invasive CUC.

Materials and Methods: Observed 84 patients with invasive CUC (T2N0−1M0 and T3N0M0). Clinical research include studying anamnesis, patient's complaint, examination, was carried out instrumental, cytologic and histologic research. Patients are devided into 2 groups by envelope method. In 1st group included 40 patients with invasive CUC, which has carried out neoadjuvant systemic polychemotherapy by scheme: Cisplatin 100 mg/m^2 in 1st day, Ftururocil 750 mg/m^2 1, 2, 3 days against hydration therapy. In 2nd group included 44 patients with invasive CUC, which has carried neoadjuvant regional long term polychemotherapy by scheme: Metotreksat 50 mg/m^2, Ftoruracil 750 mg/m^2, Cisplatin 100 mg/m^2 against detoxication and bracing therapy. In following after 2 cources of neodjuvant polychemotherapy patient executed extend extirpation of uteri with appendages and adjuvant radiotherapy.
Results: Uncertainty estimate of results has been carried out neoadjuvant polychemotherapy showed that in main group in comparison with control group marked reduction in size of tumour to 1.5 times more, subjective sensation of patients decreased, rates of bood and urine value showed a great improvement, than in control group, analisis of medical pathomorphism 3rd−4th stage in 35% patient, when in group with systemic polychemotherapy – 21%.
Resume: Thus, using intra-arterial regional long term polychemotherapy in multymodality therapy of invasive CUC allows to in short terms get regression of tumour, raises possibilities of radical surgery and improves quality of life of patients, therefore gives more favourable late results.

8037 POSTER

Intravascular embolization in treatment of disseminated choriocarcinoma of uterus complicated by bleeding

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Background: Improve the results treatment of patient disseminated choriocarcinoma of uterus complicated with bleeding by using intravascular embolization.
Materials and Methods: In our department in 2003−2008 were observed 45 patients with diagnosis of trophoblastic tumor. 38 (84, 4%) of them had and 7 (15, 5%) had disseminated choriocarcinoma of uterus complicated by bleeding. In spite of carrying out the powerful conservative haemostatic therapy with 7 patients with disseminated choriocarcinoma they couldn't achieve the efficiency, according which it was decided to carry out X-ray intravascular chemoembolization. Chemoembolization was made using the preparation doxorubicin 40 mg/m^2. Taking into consideration the facts of clinic-instrumental researches and analysis of carried out treatment of X-ray intravascular chemoembolization 2 (28.57%) patients had chemoembolization of the right uterus artery with X-ray intravascular chemoembolization of the left uterus artery, 4 (57.14%) had X-ray intravascular chemoembolization of both uterus artery with X-ray intravascular chemoembolization of both rami (AUI); 1 (14.3%) condition after hysterectomy – chemoembolization of front rami (AUI). X-ray intravascular chemoembolization also later allowed making the system C.T. after the bleeding had been stopped. Most patients in post operational period mentioned the pain of different level of intensity in the lower part of abdomen; some of them had high temperature, sickness, vomiting which usually lasted several days under the influence of concrete treatment.
Results: In reference to percent, the most effective results were taken in the view of partial regression of tumor, decreasing of the sizes of uterus till 60%; and lessening of (??) in urine and blood mentioned in 5 (71.4%) patients, and stabilization of tumour process in 2 (28.6%) patients. Disappearing of metastatic nodes in lungs mentioned in 4 (57%) patients after 1 course of C.T., in 3 (43%) after 2 courses. The changes of subjective conditions of patients with cervix cancer after the treatment, in 6 (85.7%) patients felt themselves much better in 1 (14.3%) without any effects
Conclusion: In this way optimized by us the scheme of combined treatment of patients with disseminated forms of choriocarcinoma including complicated by bleeding, X-ray intravascular intervention and systematic chemotherapy gives high effectivity of the treatment and foresee combination of radicalism with improving patient's quality of life.