and IP with FIGO stage, histology, grade, age, myometrial invasion, cervical and adnexal involvement, metastases to pelvic and para-aortic lymph nodes, positive peritoneal cytology, tumor size, lymph-vascular space invasion. Overall 5-year survival was 73.4±4.7%, 5-year disease-specific survival – 80.0±4.4%, 5-year relapse-free survival– 76.7±4.6%. Aneuploidy, iDNA>1.5, G0/G1 < 80%, S >6%, G2+M > 10%, IP > 25% significantly decreased 5-year disease-specific and relapse-free survival. Five-year disease-specific survival by ploidy was 96.6±3.4% (in diploid tumors) and 70.8±6.2% (in aneuploid tumors); by iDNA – 74.6±12.8% (iDNA < 1.0), 96.6±3.4% (iDNA = 1.0), 84.5±6.5% (iDNA = 1.0–1.5), and 13.5±12.1% (iDNA > 1.5). Five-year disease-specific survival by G0/G1 content was 53.3±10.6% (G0/G1 <80%), 89.8±4.3% (G0/G1 = 80–90%), and 91.7±7.8% (G0/G1 >90%); by S content – 94.4±5.4% (S6%) and 75.5±5.4% (S >6%); by G2+M content – 87.8±4.3% (G2+M10%) and 63.7±9.3% (G2+M>10%); by IP – 93.0±3.9% (IP < 18%), 79.8±8.1% (IP = 18–25%), and 48.2±12.4% (IP > 25%).
Conclusion: The most significant independent factors influencing prognosis for disease progression were iDNA, grade, IP, histologic type, myometrial invasion (in descending order).

958 PUBLICATION

Docetaxel (D) and oxaliplatine (DOCELOX) in advanced ovarian cancer (AOC): results of a phase I-II: a GERCOR study

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Background: docetaxel and oxaliplatin are both active drugs in AOC (Vasey et al. J Natl Cancer Inst. 2004 and Misset et al. Ann Oncol. 2001 (A phase I-II study was initiated to evaluate the tolerance and activity of the combination of oxaliplatin and D.
Material and methods: Patients (pts) with a stage III or IV epithelial OC were included. Pts were either chemonaive (1st line, L1) or relapsing >6 mts after the last platin administration (2nd line, L2 platinum sensitive). The 1st cycle was administered at the following doses: oxali 130 mg/m2 d1 and docetaxel 75 mg/m2 d1 (level 0). The D dose was increased to 85 mg/m^2 for the following cycles, if no grade 3–4 toxicity (level 1). Cycles were repeated every 21 days. 6 cycles were planned. Lenograstim was administrered as secondary prophylaxis.
Results: 32 pts were included (from 2/03 and 1/05). 26 pts were treated in 1st line and 6 in 2nd line. In 1st line, 22 pts had a stage III and 4 a stage IV. In 2nd line, the 6 pts had a stage III, and they previously received a paclitaxel/platinum based chemo as 1st line, with a median progression-free interval of 13 mts (6–32mts). 21 pts (66%) received 6 cycles. 94 cy were delivered at level 0 (32 pts) and 65 at level 1 (20 pts). Grade 3–4 tox by pt at level 0 were neutropenia (8pts, 25%) including 3 febrile neutropenia (FN), anemia (2pts, 6%), diarrhea (4 pts, 12%) and thrombocytopenia (1pt, 3%). Grade 3–4 toxicity by cycle at level 0 were neutropenia (10 cy, 11%), anemia (2 cy, 2%), diarrhea (5 cy, 5%) and thrombocytopenia (1 cy, 1%). Grade 3–4 tox by pt at level 1 were neutropenia (9pts, 45%) including 1 FN, thrombocytopenia (1 pt, 5%), N/V (1 pt, 5%), neuropathy (2 pt, 10%). Grade 3–4 toxicity by cycle at level 1 were neutropenia (9 cy, 14%), thrombocytopenia (1 cy, 1%), N/V (1 cy, 1%). Overall, 75% pts had gr 2 alopecia. Only 2 pts had a gr 3 neuropathy. Evaluation after 3 cy (n = 32): in L1, CR 6, PR10, SD 7, PD 1, ND 2. In L2, CR3, PR1, SD1, PD1. After 6 cy (n = 21): in L1 CR10, PR4, SD3, PD1. In L2, CR2, PR1.
Conclusion: The DOCELOX regimen is active and well tolerated in platinum sensitive AOC patients. The low hematological and neurological toxicity could result in a better therapeutic ratio than the classical carboplatin/paclitaxel combination.

959 PUBLICATION

Evaluation of gefinitib in combination with tamoxifen in ovarian cancer patients refractory to platinum-taxane chemotherapy – results of a phase II study (Ovar 2.6) of the AGO

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Background: Ovarian cancer patients refractory to platinum-taxane chemotherapy have a poor prognosis. In preclinical studies the epidermal growth factor receptor tyrosine kinase inhibitor gefinitib (Iressa) has shown the potential to inhibit tamoxifen resistance. In phase I/ II studies both agents showed clinical activity in ovarian cancer patients.
Patients and methods: To evaluate safety and activity of the combination of tamoxifen/gefinitib this phase II study was started. From 6/02 to 2/03 56 pts. who relapsed during or within 6 months after platinum-taxane based therapy received tamoxifen 2×20 mg/day and gefinitib 2×250 mg/day orally until progression or until unacceptable toxicity.
Results: 15 pts. had only 1 preceeding treatment with a platinum/taxane regimen, and 41 pts. had been treated at least with 2 regimens (range 2->5). The median age was 57 years (37–80 yrs). The most frequent drug related adverse events (AE) were diarrhea in 57.2% (grade 1/2 42.9%, grade 3/4 14.3%) and acne like skin rash in 39.3% (33.9% grade 1/2, 5.4% grade 3/4) of pts. Gefinitib dose reductions to 250 mg/day were necessary in 10 pts. (14.9%). Due to AE 6 pts. (10.7%) discontinued treatment. Efficacy results showed that there were no complete or partial responses, however 16 pts. achieved stable disease. A progression was seen in 33 pts.and in 7 pts. response was not evaluable. The median time to progression was 58 days (95%CI: 55–70 days), median survival time was 253 days (95%CI 137–355 days) and the median time of treatment was 58 days (7–217 days). After 6 months 59.5% of pts. were alive.
Conclusions: The combination of gefinitib and tamoxifen could be safely administered and showed acceptable toxicicty. In this combination the addition of tamoxifen did not increase the known side effects or induced additional side effects. However response rates were low and suggest that the combination of tamoxifen and gefinitib has only modest clinical activity in ovarian cancer.

960 PUBLICATION

Pathological response of cervix carcinoma to preoperative external irradiation and high dose rate brachytherapy

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Purpose: To evaluate the pathologic response of invasive cervical carcinoma – stages IIa and early IIb – to external beam irradiation to the pelvis and intracavitary high dose rate brachytherapy.
Material and Method: This is a retrospective analysis of 69 patients with histopathologic proven diagnosis of cervical carcinoma treated between January 1993 to August 1999. Median age was 45 (range 22–72) years and squamous cell carcinoma was the prevalent histologic type (81%). According the FIGO staging, 1 patient was IIa and 68 patients were early IIb (less than one third of compromised parametrium). All patients received pelvic radiotherapy with 4 or 6 MeV linear accelerator – 45 Gy (25 fractions of 1.8 Gy – five days/week) – combined to intracavitary high dose rate brachytherapy (HDRB) – 12 Gy (two insertions of 6 Gy – point A). Median total irradiation time was 42 days (range 35–108). After radiation therapy, the patients were submitted to radical hysterectomy+bilateral salpingooforectomy and selective lymphadenectomy – Piver II type, after a mean time of 40 days (range 15–136). All pathological specimens were analysed according the presence of residual tumor on the cervix, paracervical tissues and pelvic lymphnodes, and we defined pathologic response as total absence of residual disease.
Results: In 26 (38%) patients there were no residual tumor on pathological specimen (complete remission). There were 68 (100%) parametrial pathologic responders, 29 (42%) complete cervical responders. Three patients were not submitted to lymphadenectomy during surgery Pelvic

nodal involvement was found in only 9 (13%) patients. The mean number of dissected lymphnodes was 10, and median 8 (range 1–29). When surgery was performed earlier than 40 days after RT, the incidence of residual tumor was significantly higher than when performed later ($p = 0.023$).
Conclusions: Pre operative radiotherapy using external pelvic irradiation and HDRB offers 38% complete pathological response on early stage cervical cancer. The total time between the end of radiotherapy and surgery is an important prognostic factor on pathological response. With the increasing use of concomitant chemoradiation protocols, it is interesting to evaluate the pathological response rate of this association and to define the real impact of chemotherapy on outcome.

961 PUBLICATION

The rapid uptake of concurrent chemotherapy for cervix cancer patients treated with curative radiation

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Introduction: The medical literature holds many examples of physicians failing to uptake evidence into practice. In 1999 a series of clinical trials along with a clinical announcement from the National Cancer Institute (NCI) suggested that chemotherapy should be used concurrently with pelvic radiation (RT) in the management of cervical cancer. The main purpose of this study is to examine the rate of chemotherapy use, in the province of Ontario, prior to and after these Publication onlyns.
Methods: All incident cases of cervix cancer in the province of Ontario diagnosed between January 1, 1995 and March 31, 2001 were identified using the provincial cancer registry. These records were electronically linked to billing claims data and inpatient discharge abstract data. We defined patients as receiving curative RT when there was evidence of brachytherapy within 6 months of diagnosis. Those with a hysterectomy were excluded. The group was divided into 'pre' and 'post' cohorts based on the diagnosis date (April 1, 1999 cut off). The proportion receiving at least one injection of chemotherapy was compared in the pre and post groups. A logistic regression for the outcome of whether or not a patient received chemotherapy was performed with the post cohort only. Overall survival of the pre and post cohorts for all incident cases was calculated using Kaplan-Meier methods and comparisons were made with the log-rank test.
Results: We identified 3330 incident cases, of which 1039 fell into curative radiation group. Age, co-morbidity, treating center, and income quintile were similar for the pre and post cohort. In the pre cohort 9.4% of patients received chemotherapy (95% CI 7.3%-11.4%) versus 67.4% in the post cohort (95%CI 61.8%-73.0%). The change occurred abruptly in the first quarter of 1999. 70% of all chemotherapy claims included cisplatin chemotherapy. A logistic regression was performed to see which variables predicted for receiving chemotherapy among those were treated with RT in the post cohort. Age and co-morbidity were the most significant variables. Income quintile did not have a significant impact. The survival for the post cohort was not significantly different when compared with the pre cohort when all incidence cervical cancers were included.
Conclusion: There was a significant increase in chemotherapy use after the Publication onlyn of the NCI alert and related trials. Reasons for rapid uptake are discussed.

962 PUBLICATION

The efficacy of HDR brachytherapy combined with external beam radiotherapy in patients with inoperable cervical carcinoma

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Background: To evaluate treatment outcomes and possible prognostic factors of inoperable cervical cancer patients treated with external beam radiotherapy (EBRT) and high dose rate brachytherapy (HDR-BRT).
Material and method: Between 1993 and, 183 patients with cervivcal cancer were treated at our institute. EBRT was applied to standard pelvic fields with a total dose of 50.4 Gy/1.8 Gy per fraction. Patients with histologically or radiologically proven paraaortic lymph node metastasis received paraaortic irradiation with a total dose of 45 Gy/1.5 Gy per fraction. The prescribed dose to point A was 21 Gy in 3 fractions between 1995 to 2000 for all patients. Thereafter Point A dose was increased to 28 Gy in 4 fractions in Stage IIB-IVA and bulky IB diseases. Radiotherapy was a sole treatment modality until January 1997. Between January 1997 and June 1999 concomittant hydroxyurea (0.5 g t.i.d.) (37%) was administered and after the announcement of NCI in 1999, 40 mg/m^2 weekly CDDP (49%) was routinely applied.
Results: Median age was 54 years (32–92 years). The distribution of 183 patients according to FIGO system was; Stage IB1: 11 (6%), IB2: 8 (4%), IIA:7 (4%), IIB: 109 (60%), IIIA:8 (4%) and IIIB: 40 (22%), and only 17 (9%) had adenocarcinoma. Lymph node status was evaluated in 144 patients (79%). Ninety six of 144 patients (53%) underwent staging laparatomy, 52 (36%) of 144 patients had pelvic and/or para-aortic lymph node involvement, proven with laparatomy (n = 40; 28%) or CT/MRI examination (n = 12; 8%).
With a median follow-up time of 35 months (6–109 months), the 5-year OS, LRFS, DFS and DMFS rates were 57%, 75%, 61% and 80%, respectively. Univariate analysis revealed that age (⩽40 years vs >40 years; $p = 0.001$), tumor size (⩽4 cm vs. >4 cm; $p = 0.01$), hemoglobin level (⩽10 g/dL vs >10 g/dL; $p = 0.04$) and presence of lymph node metastasis ($p = 0.001$) were prognostic factors for OS and concomittant CDDP improves 5-year OS rates (74% vs 56%; $p < 0.001$). The DFS rates were lower in young age group ($p < 0.001$). Patients with tumor >4 cm ($p = 0.03$) and age >40 years ($p < 0.001$) were at greater risk for local recurrence. Distant metastases were more frequent in patients with adenocarcinoma (45% vs 83%; $p = 0.001$). oncurrent CDDP use increases DMFS rates (91% vs 78%; $p = 0.05$).
In multivariate analysis, extensive stage, anemia and parametrial invasion were negative prognostic factors for OS, while concomittant CDDP increases OS. Likewise, patients with extensive stage, adenocarcinoma and without concurrent CDDP administration had more risk for distant metastasis. There was no treatment related mortality. Grade 3–4 morbity rates were seen only in 8 patients (4%).
Conclusion: Our results show that combining 3–4 fractions of 7 Gy HDR-BRT to EBRT seems to be effective and feasible in inoperable cervical cancer patients. Patients with retroperitoneal lymph node dissection did not fare beter compared to counterparts without dissection.

963 PUBLICATION

Concurrent radiation and weekly cisplatin for locally advanced cervical cancer (LACC) as routinary management. Results from a referral cancer center in Mexico

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Background: Concurrent cisplatin-based chemoradiation is the standard of treatment for LACC according to five randomized studies performed by cooperative groups in the USA. There remains some concerns on the applicability of these findings to the open populations, particularly from developing countries. We report the results with this combined modality of treatment from a referral center in Mexico.
Patients and methods: The charts of patients with LACC (stages IB2-IVA) treated with external beam radiation (EBR) plus 6-weekly doses of cisplatin at 40 mg/m^2 in the period of January 1999 to December 2003 were reviewed. Treatment compliance, response rate, survival and toxicity were analyzed.
Results: A total of 294 treated patients (pts) with mean age was 49.4 $\pm$ 11.7 years old, (24 to 87). FIGO stage distribution was as follows: IB2-IIA 23%, IIB 53%, IIIA-IIIB 23%, IVA 1%. Most of pts (88%) were squamous, 7% and 3% were adenocarcinoma and adenosquamous respectively. EBR with lineal accelerators or Co^{60}, brachytherapy (BT) with Cs. Treatment (EBR and cisplatin plus BT) was completed in 282 (96%) of pts. One pt abandoned treatment during EBR and in 11 BT could not be performed for anatomical reasons due to persistent disease. The mean dose of EBR was 50.45 (1600 a 6400 Gys) which was completed in a median of 41 days (17–82). The median number of weekly cisplatin courses administered were 6 with distribution of 6 courses 67.01%, five in 21.77%, four in 8.16%, and 3 courses 2.38%. We observe CR 83%, persistent disease 17%, recurrences 11%. Toxicity as assessed by RTOG criteria, effects grade 3 were: anemia 1%, leucopenia 3%, neutropenia 30%, diarrhea 2%, nausea 2%, vomiting 2%. At a median follow-up of 24 months (2–68), the overall survival is 76%.
Conclusion: Chemoradiation with cisplatin is a well tolerated and effective treatment in the routinary management of LACC.