and is well tolerated; this study assessed the outcomes of using weekly paclitaxel in routine clinical practice in a tertiary cancer center.
Methods: We performed a retrospective audit of 136 patients with recurrent ovarian or primary peritoneal cancer treated with weekly paclitaxel (80−90 mg/m^2) over a 5 year period (Nov 2003−Nov 2008). Toxicity was assessed using Common Toxicity Criteria, and response was evaluated using radiologic and CA-125 criteria.
Results: Patients had a median age of 67 (range 37−88) and had previously received a median of 3 treatments (range 1−7). A median of 13 (range 1−39) weeks of weekly paclitaxel were given. The mean dose intensity actually received (as a result of dose delays and reductions) was 74 mg/m^2/week. The response rate was 50% by radiologic criteria and 68% by CA-125 criteria. The commonest grade 3 toxicities observed were neutropenia (8%) and fatigue (8%). Grade 4 neutropenia was seen in 2%. The median progression-free survival was 5.7 months and median overall survival was 12 months. The response rate by CT criteria was not significantly different (55 vs. 47%, P = 0.42) for patients who had never received previous paclitaxel compared to those that had; there was also no difference in efficacy for patients with platinum-free or treatment-free intervals of less than 6 months compared to 6 months or more.
Conclusions: Weekly paclitaxel is well tolerated and represents one of the most active regimens in patients with recurrent ovarian cancer.

8053 POSTER

Impact of FDG PET/CT images in GTV delineation of recurrent or post-surgical residual gynaecologic cancer

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Background: Geographical uncertainties in gross tumour volume (GTV) delineation in recurrent or partially resected gynaecological cancer are high using either CT or MRI. We therefore evaluated the impact of (18) F-fluorodeoxyglucose positron emission tomography (FDG PET/CT) in radiotherapy (RT) treatment planning in these tumors.
Materials and Methods: Between September 2006 and December 2008, 11 patients with recurrent (n = 6) or/with post-surgical residual disease (n = 5) were planned for RT treatment using FDG PET/CT. The primary tumour side was cervix in 3, uterus in 3, vulva in 2, vagina in 1 and ovaries in 2 patients. Four experienced radiation oncologists defined the GTV based on contrast enhanced CT (GTV_{CT}) and in a second time using the fused PET/CT datasets ($GTV_{PET/CT}$). All clinical history and previous imaging studies were provided. The GTV was also delineated using the signal-to-background ratio-based adaptive threshold (GTV_{SBR}). Overlap analysis was conducted to assess geographic mismatch between the GTVs delineated using the different techniques.
Results: The inclusion of the FDG PET findings changed the GTVs significantly in 7 patients compared with the GTV_{CT}. The wilcoxon matched-pairs signed rank test showed that $GTV_{PET/CT}$ were significantly smaller than the GTV_{CT} but $GTV_{PET/CT}$ added substantial tumor extension outside the $GTV_{CT.}$ Interobserver variability for GTV delineation was high using CT images only and could be significantly reduced using the fused PET/CT. GTV_{SBR} were usually smaller than the $GTV_{PET/CT}$ but not significantly different.
Conclusion: The use of fused PET/CT images for target volume delineation of recurrent or post-surgical residual gynaecologic cancer reduced interobserver variability significantly with respect to CT only and alters RT treatment techniques in a majority of patients.

8054 POSTER

18FDG-PET/CT findings in patients with gynaecologic cancer suspected for relapse, with increased serum tumour markers and inconclusive or negative findings on CT/MRI

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Purpose: to determine the incremental information provided by ^{18}FDG-PET/CT in patients with gynaecologic cancer suspected for relapse, with increased serum tumour markers and inconclusive or negative CT/MRI.
Patients and Methods: This is a retrospective study of 124 women with a previous history of treated gynaecological malignancies (52 with ovarian cancer, 41 with cervical cancer, 12 with endometrial cancer, and 9 with various gynaecologic malignancies), 23−86 years old (average: 55.46±6.8y), who underwent whole-body 18FDG-PET/CT in our institution from January 2007 to January 2009. All patients' outcomes were reviewed from our medical records and compared to the interpretation of the PET/CT scans. PET/CT findings in 32/35 patients were confirmed by laparotomy, histopathology, or clinical follow up.
Results: Thirty five of 124 patients (28%) had increased serum CA-125/CEA/CA15−3/aFP and inconclusive or negative CT/MRI. This patient group consisted of 26 patients with ovarian cancer, 3 with endometrial cancer and 7 with cervical cancer. One patient had two gynecological cancers and two patients had an additional breast cancer. In 7/35 patients (20%) PET/CT studies were negative and in 28/35 (80%) increased ^{18}FDG uptake was noted: In13 (37.1%) in peritoneal implants, in 15 (48.5%) in lymph nodes (LNs) - in 3 patients in LNs above the diaphragm, in 10 patients in LNs below the diaphragm and in 2 in LNs above and below the diaphragm. Foci of increased ^{18}FDG uptake in other metastatic sites were found in 8 patients. In 3 patients PET/CT revealed local recurrence, and in one patient a new malignancy (pancreatic adeno-ca) was diagnosed.
Conclusion: ^{18}FDG-PET/CT may be a additional useful diagnostic tool in relapse monitoring patients with gynaecological cancer, increasing tumor markers and negative or inconclusive conventional imaging.

8055 POSTER

The impact of prophylactic prolonged carboplatin infusion on risk of hypersensitivity reactions during carboplatin retreatment in epithelial ovarian cancer

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Background: Treatment with carboplatin in ovarian cancer patients (pts) with recurrent, platinum-sensitive disease remains the most effective strategy available today. Increased exposure to carboplatin can lead to sensitization resulting in the development of hypersensitivity reactions (HSR). At MSKCC, an increasing proportion of pts are prophylactically converted to an extended schedule after 8 cycles of carboplatin.
Methods: We performed a retrospective electronic medical record review of pts with recurrent ovarian cancer retreated with carboplatin at MSKCC from 1/1/1998−12/1/2008.
Results: 707 pts with relapsed ovarian cancer were retreated with carboplatin. Of the 590 pts who did not develop HSR, 168 (28%) received the extended long-infusion schedule and the remainder the standard 30-minute infusion. 117 pts (16%) with a median age of 60yrs and median no. of 2 comorbidities developed HSR. In this group, 54% pts received carboplatin with AUC 4 and 41% AUC 5. Only 5% of HSR pts received the extended carboplatin schedule. The first HSR episode occurred after a median of platinum treatments in the standard schedule pts & a median of 17 cycles in extended schedule pts. In the standard schedule group HSR occurred on 2nd, 3rd & 4th retreatment cycles in 89pts (80%), 19 (17%) and 3 (3%), respectively with a median 19.4 mos interval from the preceding platinum regimen to the HSR. In the extended schedule group, HSR occurred in 1 pt (33%) on the 2nd, 3 (50%) on 3rd and 1 (17%) on 4th retreatment cycle with a median interval of 18.3 mos. 100 pts (90%) in the standard group developed ⩾3 gr HSR (12.6% 4 gr, 0% 5 gr). In the extended schedule group there were no grade ⩾4 reactions, but 3 pts (50%) experienced gr 3 HSR. In the standard schedule group 36 pts (32%) developed chest pain, 18 (16%) hypotension, 7 (6%) unresponsiveness. 7 pts (6%) from the standard group required ⩾1 dose of epinephrine and 12 pts (11%) hospitalization (2/12 to the ICU). 92% and 50% of pts in the standard group and 67% and 17% in the extended group required IV diphenhydramine & steroids, respectively. Using the Fisher-exact test there was an association with a reduced incidence of HSR with the extended infusion (p-value of <0.001).
Conclusion: The extended infusion schedule was associated with a reduction in the incidence and severity of HSR. Prospective validation is warranted to determine if the prophylactic conversion to the extended schedule of administration after 8 cycles of carboplatin (and/or the use of pre-medications) reduces the incidence of HSR.