48−84 years). Informed consent was obtained from all patients. Underlying pathology was squamous cell carcinoma (n = 24, 96%) and malignant melanoma (n = 1, 4%). The median total dose of radiotherapy to the primary tumor was 65 Gy (range, 60–70 Gy) given in 1.8 or 2.0 Gy single daily fractions. All patients were treated with concurrent chemotherapy consisting of two cycles of cisplatin or nedaplatin combined with 5-FU or docetaxel. All patients underwent FDG-PET scanning within several days of CRT completion. Maximum standardized uptake value (maxSUV) at the primary site was evaluated for CLR and LRFS in univariate and multivariate analyses. P values <0.05 were considered significant.
Results: See Table 1. Univariate analysis revealed that maxSUV cutoff values of 3.5 (P = 0.042) and 6.5 (P = 0.024) were significantly associated with CLR. Multivariate analyses showed that maxSUV > 3.5 was predictive of CLR. The log-rank test found that maxSUV cutoff values of 3 (P = 0.02), 3.5 (P = 0.014), 6.5 (P = 0.004), and 7 (P = 0.034) were related to LRFS. The multivariate Cox model revealed that maxSUV > 3.5 was significantly correlated with LRFS.
Conclusions: Early FDG-PET scans following curative CRT appears to be valuable in evaluating CLR and LRFS in esophageal cancer patients.

Table 1. Post-CRT FDG-PET assessment of clinical response at primary site[a]

SUV criteria	Sens. (%)	Spec. (%)	Accuracy (%)	P value	
				Univar.	Multivar.
SUV >2.0 vs. ⩽2.0	100	6	36	NS	NS
SUV >2.5 vs. ⩽2.5	100	18	44	0.527	0.953
SUV >3.0 vs. ⩽3.0	88	53	64	0.088	0.972
SUV >3.5 vs. ⩽3.5	88	59	68	0.042	0.029
SUV >4.0 vs. ⩽4.0	63	59	60	0.411	0.953
SUV >4.5 vs. ⩽4.5	50	65	60	0.667	0.928
SUV >5.0 vs. ⩽5.0	50	71	64	0.394	NS
SUV >5.5 vs. ⩽5.5	50	88	76	0.059	0.941
SUV >6.0 vs. ⩽6.0	38	88	72	0.283	0.946
SUV >6.5 vs. ⩽6.5	38	100	80	0.024	0.928
SUV >7.0 vs. ⩽7.0	25	100	76	0.093	NS

[a]Sens., sensitivity; Spec., specificity; Univar., Univariate analysis; Multivar., multivariate analysis; NS, not significant.

Abbreviations: CRT = chemoradiotherapy; FDG-PET = ^{18}F-fluorodeoxyglucose positron emission tomography; SUV = standardized uptake value.

3556 POSTER

The utility of PET in anal cancer

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Background: Functional imaging is becoming increasingly important in the staging and assessment of cancer patients. The aim of this study was to assess the utility of FDG-PET in anal cancer for staging, treatment response and detection of recurrent disease.
Methods and Materials: A retrospective study was performed on 50 patients that were identified with histopathologically confirmed epidermoid anal cancer referred to the Austin PET Center between 1996–2006. 45 patients were treated with curative intent (radical) mainly with combined chemo-radiation. The remaining 5 patients were treated with radiotherapy alone. PET imaging was initially performed on a Phillips Allegro PET scanner then subsequently on a Phillips Gemini PET-CT scanner from 2003. The median age of the patients was 58 years (36−85 years). The non-PET clinical staging including CT was of 8 Stage I (16%), 18 Stage II (36%), 22 Stage III (44%), and 2 Stage IV (4%) patients. PET was used in staging and following treatment to assess the response and detect recurrent disease. The PET results were correlated with clinical and pathological findings.
Results: Pre-treatment PET staging was performed in 48 patients. The primary tumor was excised in 7 patients and the PET scan was negative at primary site in all. In the 41 patients with a non-excised tumour, the primary tumor was strongly FDG avid in 40 (98%) patients compared to CT which detected 58%. PET upstaged 8 (17%) patients with unsuspected pelvic or inguinal nodal disease and downstaged 3 (6%). Post-treatment PETs were performed in 25 patients (median time of 17 weeks, range 9−28 weeks) of which there were 20 (80%) complete responses (CR) and 5 (20%) partial responses (PR). By 18 weeks, 15 of 16 scans (94%) performed showed a CR. The PRs were biopsy positive in 2 and negative in 3. At last follow-up, 10 of the 45 radical patients (22%) had developed recurrent disease of which 9 had PET scans. In seven patients, the PET scanning was used to confirm recurrence. In the remaining two patients, follow-up PET detected unsuspected recurrence where there was no prior clinical or radiological evidence of disease. All of the 9 PET detected recurrences were pathologically confirmed.
Conclusions: Anal cancer appears to be FDG avid and PET upstages nearly one fifth of patients. Therefore, PET is useful for staging of anal cancer and can assist in the identification of residual disease post-treatment and can aid in the detection of recurrent disease.

3557 POSTER

Phase I study of docetaxel, oxaliplatin and S-1 (DOS) for patients with advanced gastric cancer

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Background: Docetaxel, oxaliplatin and S-1 have shown significant single-agent efficacy in gastric cancer. These drugs have distinct mechanisms of action and no overlapped key toxicities. Furthermore, fluoropyrimidine and docetaxel or oxaliplatin have shown synergism in vivo studies and in clinical trials. We performed a phase I study of combination docetaxel, oxaliplatin and S-1 (DOS) to determine the maximum-tolerated dose (MTD), recommended dose (RD) and efficacy in advanced gastric cancer.
Methods: Eligible patients were those who had unresectable, locally advanced or metastatic, gastric adenocarcinoma. Both initially diagnosed and recurred patients with no previous history of chemotherapy except adjuvant chemotherapy were enrolled. The patients of age 18 to 70 with ECOG PS 0−2 were enrolled to this study. Docetaxel and oxaliplatin were administered intravenously on day 1 and S-1 was administered orally on days 1−14. Cycles were repeated every 21 days. Doses were escalated as follows: docetaxel/oxaliplatin/S-1, level −1A 52.5/80/60; level −1B 52.5/80/80; level 1A 52.5/105/80; level 1B 52.5/130/80; level 2A 60/105/80; level 2B 60/130/80; level 3A 67.5/105/80; level 3B 67.5/130/80; level 4A 75/105/80; and level 4B 75/130/80 (mg/m^2).
Results: Nine patients (male/female 6/3; median age 52, range 39−67; median ECOG PS 0) have been enrolled in this study. Five patients had recurred cancer after surgery and adjuvant chemotherapy and 4 patients were diagnosed as a metastatic disease. Tumor differentiation was 2 moderate, 5 poor and 2 unknown. Main sites of metastasis were 6 liver, 6 lymph node, 8 peritoneum, 1 bone and 2 others. One of 6 patients at level 1A and 2 of 3 patients at level 1B developed dose-limiting toxicity (grade 4 neutropenia with fever) during the initial 2 cycles. Therefore, the dose at level 1B and level 1A were determined as the MTD and RD, respectively. A total of 51 cycles were administered (median 7, range 1−9). All patients were evaluated for toxicity and response. The main toxicities were neutropenia (grade 1/2/3/4 = 0/0/2/7 patients) and neutropenic fever (grade 3 = 4 patients) that were easily manageable. There were 5 PR, 3 SD and 1 PD. The response rate was 56% and the disease control rate was 89%.
Conclusions: These data suggest that DOS regimen is safe and active in patients with advanced gastric cancer. Phase II study with RD will be started.

3558 POSTER

Metastatic small bowel adenocarcinoma: favourable outcome in patients with primary tumour resected – retrospective analysis of 44 cases

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Background: Small bowel Adenocarcinoma (SBA) is a rare disease with probably less than 400 new cases per year in Germany. Only limited data is available concerning the effect of palliative chemotherapy (CT) in this disease. Resection of the primary tumour is not routinely performed if distant metastases are present.
Material and Methods: We retrospectively evaluated the files of all patients (Pt) who received at least one cycle of palliative CT. Pt were classified to have the primary (PRI) or local recurrence (LR) surgically completely removed or not and whether they were offered a 2nd-line CT in case of failure or not.