complete response (CR) in 66.0% and partial response (PR) in 30.0% of patients with overall response rate (ORR) 96.0%. Cancer of larynx T1N0M0 and cancer of low lip T1–3N0M0 were more sensitive to the PDT-CR 90% and 76.5% accordingly. 2 months after PDT with RC there was ORR – 100% with CR in patients with BCC T1–2NOMO – 92.9%, in patients with recurrrencies of cancer CR – 60.6%, PR – 39.4%. The efficacy of PDT with PS was higher (CR – 86.7%, PR – 13.3%) and the recurrence rate in 6 months is significantly lower in patients with T3–4 stage BCC.
Conclusion: Our experience show pronounced efficacy of PDT for head and neck tumors of different localization and histology. Response to PDT depended upon several factors including photosensitizer, tumor size, localization and previous treatment. FD is providing diagnostically significant information about disease advance, allowed identification of subclinical lesions, demonstrated high sensitivity and specificity.

1050 POSTER

Weekly paclitaxel in patients with recurrent or metastatic head and neck cancer

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Introduction: Patients who failed to the standard first line chemotherapy 5FU–cisplatin have poor prognosis and survival. Paclitaxel is an emergent drug in Head & Neck cancer and it has showed moderate activity in these cancers. Weekly paclitaxel seems less toxic and probably more efficient that monthly paclitaxel possible because of the proapoptotic and antiangiogenic activity, the dose intensity is quiet higher and the toxicities are mild. The aim of this study was to assess the efficacity and toxicity of weekly paclitaxel in patients with recurrent or metastatic sq.c.c. of H & N.
Patients and methods: Twenty patients with recurrent or metastatic sq.c.c. of H & N during the period April 2001 to August 2003 were enrolled. Patients characteristics: median age 50 y, M/F 15/5, PS < 2, adequate renal, liver and bone marrow functions, main location of disease were local in 9 pts, local and nodes in 6 pts and nodes in 5 pts.
All patients (previously pretreated with the standard 5 FU–cisplatin regimen, and radiotherapy or surgery) were assigned to receive paclitaxel 80 mg/m^2 D1, 8, 15 and paraplatin 400 mg/m^2 D1 every 4 weeks for 8 courses.
Results: All patients were evaluable for response and toxicity, median age 50 years (range 42–60 y), PS < 2. A total of 153 cycles has been delivered with a median of 7 cycles/patient (4–8), with no dose reduction. The overall response rate was 55% (CR 10%, PR 45%), 7 patients had stable disease (35%) and 2 pts had progressed disease (10%). Haematological toxicity was one pt (5%) with G2 neutropenia, 2 pts (10%) with G2 anemia, no G3/G4 toxicity. Other toxicity was G2 mucositis in 2 pts (10%), G2 peripheral neuropathy in one pt (5%). Median time to progression was 10 months (4–24 months) and median overall survival was 14.2 months (9–30 months).
Conclusion: The results confirm that the combination of weekly paclitaxel & paraplatin is an effective, active, safe and well tolerated regimen for treatment of advanced or metastatic Head & Neck carcinoma.

1051 POSTER

The "quad shot" – palliative radiotherapy in locally advanced head and neck squamous cell carcinoma

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Background and Purpose: Few prospective studies of palliative radiotherapy in locally advanced head and neck squamous cell carcinoma (LAHNSCC) have been reported. The primary objective of this study was to estimate the rate of tumour response to a cyclical hypofractionated palliative radiotherapy regimen (QUAD SHOT) in patients with LAHNSCC. Secondary objectives were to prospectively evaluate toxicity, quality of life (QoL) and survival in these patients.
Materials and Methods: This was a single arm prospective study. The QUAD SHOT consisted of 14 Gy in 4 fractions, given twice a day and at least 6 hours apart, for 2 consecutive days. This regimen was repeated at 4 weekly intervals for a further 2 courses if there was no tumour progression and the side effects were tolerable.
Results: Thirty eligible patients had at least one treatment and 16 patients completed all three cycles. The median age was 73 years (52–88 years). The oral cavity was the predominant primary site of disease (13 patients). Twenty-nine patients (97%) had Stage IV disease, of which 5 were Stage IVC. Sixteen patients (53%) had an objective response (2CR, 14PR) and a further 7 had stable disease. Median overall survival was 5.7 months (range 0.6–26.7 months) and median progression free survival was 3.1 months (range 0.6–11.4 months). The majority of evaluable patients had improvement or stabilisation of their symptoms. There was minimal treatment toxicity – grade 0 or 1 mucositis only in 24/27 patients (89%). Overall QoL compared to pre-treatment levels was improved in 11 of 25 evaluable patients (44%).
Conclusion: The QUAD SHOT regimen is an effective palliative treatment with minimal toxicity and a good response rate which impacts positively on patients' QoL.

1052 POSTER

Interleukin-6 levels in thyroid cancer and nodular goitre

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Interleukin-6 (IL-6) appears to play multiple functions in thyroid physiology and disease. Cultured normal human thyroid follicular cells constitutively release IL-6, and IL-6 levels have been shown to correlate with serum T3 and free T4. Furthermore, IL-6 expression has been related with aggressiveness in papillary thyroid cancer. IL-6 is thought to act over the extrinsic pathway of coagulation through tissue factor expression. Haemostatic abnormalities have been reported in patients with thyroid diseases, depending on its severity. Thus, the present study was aimed at analyzing the possible association between IL-6, hormone profile and coagulation parameters in patients with thyroid cancer or benign diseases, to better characterize their possible link. To this purpose, 28 patients with early stages papillary thyroid cancer (n = 14) or benign nodular goitre (n = 14), and 14 healthy euthyroid subjects, all matched for age and sex, were evaluated. Eight patients were under replacement therapy at entry time. In each subject, plasma IL-6 levels (R&D Systems), prothrombin time (PT), activated thromboplastin time (PTT), fibrinogen and D-dimer, free T3, free T4 and TSH concentration were determined. The results obtained are expressed as mean±SD or median (interquartile range) and summarized as follows.

	Age	IL-6 (pg/ml)	Fibrinogen (mg/dl)	D-dimer (g/ml)
Euthyroid controls	56±13	0.7 (0.4–1.3)	259±58	147 (122–202)
Nodular goitre	50±16	1.4 (0.7–2.0)	307±60	161 (89–269)
Papillary cancer	56±13	2.1 (1.2–3.3)	313±48	207 (139–371)
P value	=0.388	=0.019	=0.041	=0.769

No significant differences were observed for TSH, free T3 or T4 after adjustment for replacement therapy. IL-6 significantly correlated with fibrinogen (Rho = 0.31, p = 0.04) and TSH (Rho = −0.55, p < 0.001) levels in the overall population. The correlation between IL-6 and TSH was maintained in benign or cancer patients without replacement therapy (Rho = −0.54, p < 0.01). Multivariate analysis including age, sex, hormonal therapy, PT, PTT, d-dimer, fibrinogen, free T3, free T4 and TSH showed that both TSH (β = −0.44, p = 0.03) and free T4 (β = 0.41, p = 0.04) were predictive of IL-6 levels in thyroid diseases, independently of replacement therapy. No association was found between IL-6 and coagulative parameters. We conclude that the increased IL-6 levels observed in patients with thyroid diseases are related to the hormone profile, probably reflecting the functional status of follicular cells.

1053 POSTER

Accelerated hyperfractionated intensity modulated radiotherapy (AHI) for T2–3 oropharyngeal carcinoma: preliminary results from a phase I-II study

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Purpose: We designed a novel schedule combining IMRT and accelerated hyperfractionation for oropharyngeal carcinoma in order to exploit both the clinically proven benefit of altered fractionation and the dosimetric advantage of a more conformal dose distribution with a simultaneous integrated boost technique. Here we report early outcome data.
Methods: Between November 2002 and January 2005, 23 patients with T2 (12 pts) or T3 (11 pts) squamous cell carcinoma of the oropharynx

(tonsil, 11 patients; base of tongue, 7; soft palate, 4; pharyngeal wall, 1) were accrued. Distribution of N stage was: N0, 8 patients; N2a, 1; N2b, 9; N2c, 1; N3, 4.
Treatment consisted of IMRT alone to deliver 78 Gy/60 fractions/6 weeks to the GTV plus 5 mm margins at 1.3 Gy b.i.d. and at the same time 1.15 Gy and 1.0 Gy to areas at high and low risk for microscopic disease, respectively. Dose objectives were placed on the mandible, parotids and larynx (outside PTV) where we followed RTOG protocol 0022 directions after correction for the dose per fraction; for the part of the larynx, if any, overlapping with PTV78, a 75 Gy maximum dose limit was placed, and the total dose to the mucosa outside any PTV was tentatively limited to $\leqslant$30 Gy. Acute toxicity was scored weekly during treatment according to RTOG/CTC v2.0 criteria. All patients are eligible for acute toxicity analysis; 18 patients have a 6-month minimum follow up (median: 17.5 months, maximum: 28.7 months) and are also evaluated for locoregional control and overall survival.
Results: All patients were able to complete treatment as planned. All patients developed confluent mucositis within the PTV region and 17 (68%) moist desquamation of the skin. Mean weight loss was 11% (SD: 4.2%); 11 (44%) patients had gastrostomy tubes placed during their therapy, and 2 required the feeding tube for more than 6 months following IMRT. Seven (28%) patients were also admitted for a mean time of 11 (SD: 4.3) days. So far, none of the patients have developed loco-regional recurrence while 1 patient developed distant metastases and is currently undergoing palliative chemotherapy. One patient died of intercurrent disease at about 6 months after treatment end.
Conclusion: Preliminary data suggest that AHI is associated with intense but transient acute toxicity. Early data show high loco-regional control rates. However, longer follow-up is required to determine if results are durable and to assess its late toxicity profile.

1054 POSTER

Induction and concomitant chemotherapy with hypofractionated radiotherapy in advanced head and neck squamous cell carcinomas, does it improve outcome? A single institution experience

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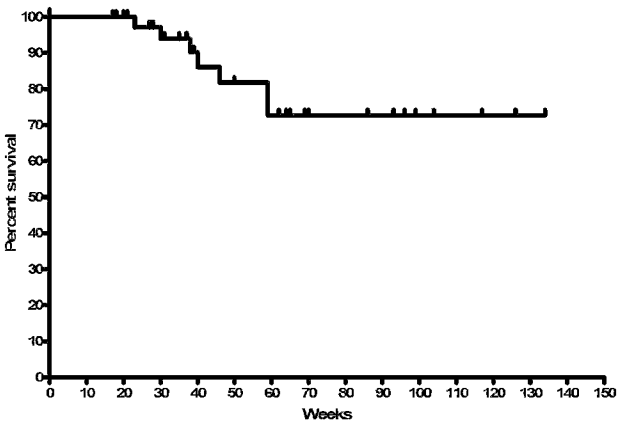
Background: Locally advanced head and neck squamous cell carcinomas (HNSCC) has poor local control rates and overall survival. We report on our experience of induction and concurrent chemotherapy with hypofractionated radiotherapy (R/T) which can improve outcome.
Materials and Methods: Patients with histologically confirmed HNSCC radically treated in Norfolk and Norwich University Hospital from 1/6/02 to 31/12/04 were analysed. 41 patients had 3 cycles of induction C/T with cisplatin 100 mg/m^2 on day 1 and 5-fluorouracil (5FU) 1000 mg/m^2 continuous infusion days 2 to 6 (PF) repeated every 28 days. Concurrent weekly carboplatin 100 mg/m^2 was given with R/T provided creatinine clearance (CC) was >60 mls/min. Conformal R/T was delivered using CT planning. Because of constraints on machine time, hypofractionated R/T was used to a dose of 55 Gy/20 fractions () in 4 weeks; nasopharynx tumours were given 66 Gy/33 over 6.5 weeks.



Disease free survival.

Results: The average age was 61 years (17–82 years). 59% male: 41% female. Sites involved were 7% anterior tongue, 58% oropharynx (with base of tongue, 22%, tonsil 18%, other sites 18%) pyriform fossa 5%, glottis 5%, supraglottis 10% and nasopharynx 15%. Using the TNM Classification (2002) they were staged I = 3%, stage II = 7%, stage III = 22%, stage IVA = 63%, stage IVB = 5%. 54% received full dose PF, with 12% cardiovascular complications. Of the remainder, 15% had cisplatin dose reduced by 25%, 15% switched to carboplatin because of low CC and 15% had only 2 cycles given, mostly because of confluent mucositis. 1 patient progressed on C/T and had a radical selective lymph node dissection followed by R/T alone. Serious complications occurred in 1 case who died from neutropenic sepsis 9 days post completion R/T with full C/T given. 32% had weekly concurrent Carboplatin, 36% had <4 courses. 32% received no carboplatin. During R/T the RTOG acute radiation morbidity scoring criteria was used. Early side effects were mucositis in 95%, with grade 2 = 36%, grade 3 = 64% and no grade 4 reactions reported. Skin side effects were reported in 42%. Late side effects included xerostomia in 10%, and 5% (2 patients) had osteoradionecrosis of the mandible. Follow-up was an average 20 months (6–36 months). Alive with disease 10%, 17% patients died, all staged III or IV at diagnosis, recurring an average of 10 months after diagnosis. Disease free survival (DFS) at 30 months= 73%.
Conclusions: The use of induction and concurrent C/T with hypofractionated radical R/T is a well tolerated regime. The DFS compares favourably to the published literature. Longer follow-up is required to determine if overall survival is improved.

1055 POSTER

Multimodality treatment for anaplastic thyroid carcinoma – does it improve survival?

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Background: Anaplastic carcinoma of the thyroid gland (ATC) is an uncommon malignancy with a median survival ranging from 3–7 months. Aggressive multimodality treatment is thought to increase local control and even survival. In a retrospective analysis, we compared the outcome of patients treated with surgery followed by hyperfractionated radiotherapy in combination with low dose Adriamycin as compared to patients treated with conventional radiotherapy.
Materials and methods: Locoregional radiotherapy (46 $\times$ 1.1 Gy) was administered twice daily, followed by prophylactic radiation of the lungs (5 $\times$ 1.5 Gy). During radiation, Adriamycin was administered in a dose of 15 mg/m^2 i.v. weekly. After chemoradiation, Adriamycin was continued in a dose of 50 mg/m^2 every 3 weeks until a cumulative dose of 550 mg/m^2 was reached.
Patient and treatment characteristics, toxicity profile, tumor control and survival were scored.
Results: A total of 75 patients with ATC were treated in our institution between 1972 and 2002. Mean age was 68 years, male:female ratio 1: 3. Surgery was performed in 48% of patients, of which 53% resulted in an R0/R1 resection. A total of 30 patients were treated according to the hyperfractionation protocol; 15 underwent prophylactic lung irradiation. The other 45 patients were treated with conventional radiation therapy (dose range 20–70 Gy).
Mean overall survival was 3 months, 1 year overall survival 9%. Locoregional control was significantly better in both the surgery and the chemoradiation group, with best results for the patients who had had both R0/R1 surgery and chemoradiation. Survival for patients who reached a complete response (CR) at the end of treatment was significantly improved, with median overall survival 7 months and 1 year overall survival of 51% ($p < 0.001$). Three patients survived for more than 5 years; they all underwent R0/R1 surgery followed by chemoradiation. In multivariate analysis, complete response at the end of treatment was an important factor for survival.
Acute toxicity in the protocol group was significantly worse as compared to the conventionally treated patients, with 46% versus 11% grade 3 pharynx/esophagus toxicity.
Conclusion: Anaplastic thryroid carcinoma remains a highly lethal malignancy. However, for a highly selected group of patients, local control and even long time survival can be obtained by aggressive multimodality treatment, at the cost of increased acute morbidity.