T4 (p = 0.06), N0 (p = 0.0007), RT dose 54 Gy or more (p = 0.006), surgery (p = 0.01), and total resection (p = 0.009) or R0/R1 resection (p = 0.01) in operated patients. In multivariate analysis, best independent factors were T1-T3 (RR = 0.69; p = 0.05), N0 (RR = 0.60; p = 0.05), R0 or R1 resection (RR = 0.33; p = 0.008), and RT dose 54 Gy or more (RR = 0.30; p = 0.007).
Conclusions: Olfacfactory neuroblastoma had the best outcome especially treated with R0/R1 surgical resection followed by at least 54-Gy postoperative RT. Novel therapies including concomitant chemotherapy and/or higher dose IMRT should be prospectively investigated in this rare disease.

1046 POSTER

Dose escalation of daily carboplatin concurrent with accelerated radiation by delayed concomitant boost for locally advanced head and neck cancer

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Background: Accelerated radiation by delayed concomitant boost (AFX-CB) and concurrent chemoradiation represent two major advances in head and neck cancer treatment; however, the optimal regimen integrating these advances has yet to be defined.
Methods: We investigated escalating small daily doses of carboplatin prior to each fraction of AFX-CB to maximize radiosensitization and avoid severe hematologic toxicity. Thirty five patients (27M;8F) with 2002 AJCC Stage II-IVB [12 resectable cancers requiring total laryngectomy and 23 unresectable cases (T4b: 20 or N3: 3)] were treated with AFX-CB to 70 Gy/6weeks (BID RT last 2 weeks) with daily doses of carboplatin escalating from 10 to 17.5 mg/m^2/d and given within 1 hour prior to radiation. Treatment sites were primarily oropharynx n = 16 or larynx n = 12. Dose limiting toxicity (DLT) was defined as NCI common toxicity grade 2 hematologic toxicity or grade Gr 4 mucositis. Erythropoietin (EPO) was initiated if hemoglobin (Hgb) fell below 12 g/dl.
Results: 94% (33/35) completed a full course of chemoradiation. Median radiation dose: 70 Gy (53–71.6 Gy). Ten patients were treated at 10 mg/day; 12 at 12.5 mg, 9 at 15 mg and 4 at 17.5 mg. The maximum tolerated dose was 15 mg/m^2. 9 patients required a treatment break with a median duration of 3 days (1–5d). Grade 2 or 3 hematologic toxicities were as follows: anemia 0%/3%, leukopenia 15%/3% and thrombocytopenia 0%/0%. One patient had a Gr 4 mucositis. Acute Gr 3 toxicities were as follow: 1) mucositis:58%, 2) pharyngitis 58% and 3) dermatitis:12%. Median weight loss was 4.6% (0–14.4%). EPO raised Hgb levels by a median increment of 1.5 g/dl (0.2–3.0 g/dl) and above 12 g/dl in 13 of 15 pts. 3 patients are PEG dependent.
At a median followup of 15 mos, actuarial estimates of 1-year locoregional control are 72% among unresectable cancers and 89% for organ preservation patients. One year overall survival are 77% and 89%, respectively. Distant metastases at 1 year are 24% and 11%, respectively.
Conclusion: The addition of carboplatin to AFX-CB is well tolerated and the MTD is 15 mg/m^2. Organ preservation rates with daily carboplatin are comparable to high-dose cisplatin but without associated severe hematologic toxicity. Daily carboplatin with AFX-CB for unresectable patients yields excellent locoregional control and allows for further intensification of therapy due to its relatively low toxicity profile. EPO can effectively correct mild anemia during chemoradiation.

1047 POSTER

Factors affecting immediate postoperative outcome in surgically treated patients of oral cancers

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Introduction: Due to the tobacco chewing habit, oral cancer is the most common cancer in our country. Most of the patients with these cancers are treated with major ablative surgery with or without flap reconstruction. The goal of this study is to determine the risk factors for post-operative complications and overall morbidity for patients of oral cancers who underwent surgical excision with or without flap reconstruction.
Material and Methods: A prospective study of 185 surgically treated patients of oral cancers was conducted in a tertiary cancer hospital over a period of eight months. These patients were evaluated after various surgical and reconstructive procedures during perioperative and postoperative period. The outcomes were classified into major and minor complications and morbidity was calculated in terms of prolonged hospital stay. Multiple variables were recorded and cross tabulated against major and minor complications. The statistical analysis was done with SPSS 11.5 software using Chi square test and Fisher's exact test.
Results: The major complication rate was 8.1% (15 out of 185 cases) and the minor complication rate was 43.2% (80 out of 185 cases). The total morbidity was 37.5% (69 patients). The univariate analysis showed that requirement of flap reconstruction was the most important prognostic factor for major complications ($p < 0.001$). The factors responsible for minor complications were advanced disease ($P < 0.001$), Blood loss >500 cc ($P < 0.001$), Intra-operative tracheostomy ($P < 0.001$).
Conclusions: The incidence of complications in postoperative setting of advanced oral cancer (T3, T4) is high so also is the morbidity. Various factors which influence the outcome are highlighted and taking adequate precaution would help in progressing towards decreasing the morbidity, complications and hospital burden thus decreasing the hospital stay and improving quality of life.

1048 POSTER

Adjuvant IMRT for esthesioneuroblastoma – the early MD Anderson experience

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Background: Esthesioneuroblastoma is a rare cancer of the sinonasal tract that presents in an anatomically challenging region. Intensity-modulated radiation therapy (IMRT) promises to improve local control without increasing the risk for radiation morbidity. We examined our initial results with the use of IMRT for adjuvant treatment of this disease.
Material and methods: Eight patients presenting with esthesioneuroblastoma were treated from 2001 through 2004 with resection and adjuvant IMRT for local management. Stage was Kadish B in 4 patients, and Kadish C in 4. All patents had clear surgical margins, except for one Kadish C patient with microscopically positive margins. Treatment planning goals included delivery of 60 Gy in 30 fractions to a clinical tumor volume (CTV1) encompassing the surgical resection bed, and 54 Gy in 30 fractions to a CTV2 encompassing adjacent at-risk tissues and nodal levels. Average follow-up duration was 25 months (range: 12–42).
Results: Mean IMRT doses delivered to CTV1 and CTV2 were 62.2±0.8 Gy and 58.6±1.1 Gy, respectively. Mean total CTV coverage with target doses was 96.3%±1.7. Mean optic chiasm, optic nerve, eye, lens, and temporal lobe doses were 38.6±6.1 Gy, 48±5.5 Gy, 23±4.4 Gy, 10.5±3.6 Gy, and 21.1±6.6 Gy, respectively. Mean number of beams used was 9.1±1.2. All patients remain free of disease progression and have no severe late radiation morbidity.
Conclusion: Our early results suggest that adjuvant IMRT for esthesioneuroblastoma permits conformal delivery of high dose radiation with excellent tumor control and tolerance

1049 POSTER

Photodynamic therapy and fluorescent diagnostics with different second-generation photosensitizers in head and neck cancer patients

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Aim: Photodynamic Therapy (PDT) and fluorescent diagnostics (FD) using Photosense 've been provided in 50 patients with head and neck cancer (HNC) T1–3 stage and in 89 patients with skin cancer, using Radaclorin (RC) – in 42 patients with T1–4 stage basal cell carcinoma (BCC), in 6 patients with oral cancer, FD with Alasense (5-aminolevulenic acid, ALA) in 127 patients with T1–3 BCC, squamous cell carcinoma (SCC).
Materials: FD with detecting the borders of tumor growth, accumulation in tumor, normal tissues 've been done by Spectral-fluorescent Complex (He-Ne-laser). Using light sources (380–440 nm) we've got 2-dimensional pictures of fluorescence. We used semiconductive lasers for PDT: Milon – 660+2 nm, light dose was 200–300 J/cm^2 and Biospec (672+2 nm), multiple laser surface and interstitial irradiation was performed 24 hours after PS injection with total light dose till 400–600 J/cm^2 and single light irradiation with light dose 200–300 J/cm^2 using RC.
Results: We've got fluorescence of all tumors using AS: in 52% of patients it exceeded the borders of clinically detected sites. The intensity of fluorescence in SCC was positively higher then in BCC. In 35.7% patients with BCC additional fluorescence zones were found, cytological verification in 93.3%. We've got fluorescence of all tumors using PS and RC, additional fluorescence zones were found, cytological verification was got in most of cases. 2 months after PDT with PS in 50 patients with HNC we've had