834 Poster
Accelerated postoperative radiation therapy with weekly concomitant boost in high risk patients with squamous-cell carcinoma of the head and neck
M. Otszahia, J. Chevalier, P. Pascha, P. Coucke, R.O. Mrinonato, A. Zouhair
1Lausanne University Medical Center (CHUV), Radiation Oncology, Lausanne, Switzerland
2Lausanne University Medical Center (CHUV), Otorhinolaryngology, Lausanne, Switzerland
Purpose: To assess the feasibility and efficacy of accelerated weekly 6 fractionated 66-Gy postoperative radiation therapy (RT) using a single fraction regimen from Monday to Thursday and a concomitant boost in the Friday afternoon sessions in patients with squamous-cell carcinoma of the head and neck (SCCHN).
Materials and methods: Between December 1997 and July 2001, 68 male to female ratio: 52/16; median age: 60 years (range: 43–81) consecutive patients (refusing to participate to the ECORTZ 22931 study comparing post-operative RT vs. RT plus chemotherapy) with pT4pN1pM0 or pN0pN3 SCCHN (24 oropharynx, 19 oral cavity, 13 hypopharynx, 5 larynx, 2 maxillary sinus, 2 salivary gland, and 3 unknown primary) were included in this prospective study. Postoperative RT was indicated because surgical margins were not free of tumor in 20 (29%) patients, extranodal infiltration was observed in 20 (29%) patients (both present in 23 [34%]), in two patients (3%) because of lymphangitis, and in 3 patients (5%) because of other reasons. RT consisted of 66 Gy in 5/2 weeks. Prophylactically porcine parotid gland and trachea were included in 19 patients. Median follow-up was 15 months.
Results: All but one patient (not finishing the treatment because of non-treatment-related reasons at 66 Gy) received the planned total dose without unplanned interruption. Acute morbidity was acceptable: grade 3 mucositis in 15 (22%) patients, grade 3 dysphagia in 19 (26%) patients, grade 3 skin erythema in 21 (31%) patients, and a median weight loss of 3 kg was observed (range: 0–16). No grade 4 toxicity was observed. Considering the late effects, grade 3 Xerostomia was observed in 6 (9%) patients, grade 3 edema in 2 (0.2%) patients. In a median follow-up period of 13 months, only 3 (4%) local and 4 (6%) regional relapses were observed, and 12 (18%) patients developed distant metastases (all locoregionally controlled). The 2-year overall and disease-free survival and actuarial locoregional control rates were 85%, 75%, and 83%, respectively.
Conclusion: We conclude that reducing the overall treatment time using postoperative accelerated RT by weekly concomitant boost (6 fractions per week) is easily feasible with a good local control, and acute and late RT-related toxicity is highly acceptable. Given the disease progression pattern (distant metastases), adjuvant chemotherapy should be considered.
835 Poster
Optically guided intensity modulated radiotheraphy for the head and neck
1University of Wisconsin Medical School, Department of Human Oncology, Madison, USA.
2University of Wisconsin Medical School, Department of Medical Physics, Madison, USA.
Purpose: In this work we report on the use of an optical guided system for intensity modulated radiotherapy (IMRT) to the Head and Neck.
Method: An IMRT treatment plan is generated using seven coplanar beams, spaced uniformly, every 40 degrees along a 240-degree arc starting at an angle of 60 degrees and ending at an angle of 240 degrees, going counter clockwise using the IEC convention in the stereotactic space established by an optically guided system. The posterior 120-degree avoidance region is established by an optical guidance system.
Results: Of the eight patients treated using this technique three patients had no change from baseline salivary gland function, while five patients reported slight dryness of mouth but had good response of salivary gland function upon stimulation. Conclusions: Optical guided technology improves the accuracy of patient localization relative to the linac isocenter and allows real-time monitoring of patient position during treatment. These IMRT plans can be safely and effectively delivered. IMRT planning provides the user the ability to conformally avoid critical structures. It therefore, enhances the normal tissue sparing as well as provides a high degree of conformality. Additionally, optical guided technology also provides improved interfraction patient localization and online monitoring of patient position within a tolerance band of ±0.3 mm translational error and a ±0.3-degree rotational error during treatment delivery.
836 Poster
High dose rate interstitial brachytherapy for oropharynx cancer
T. Nose, K. Yoshibe, M. Koizumi, K. Nishiyama, T. Inoue
1Osaka Medical Center for Cancer and Cardiovascular Disease, Radiation Oncology, Osaka, Japan
2Osaka National Hospital, Radiology, Osaka, Japan
3Osaka University, Radiation Oncology, Osaka, Japan
Objective: To improve local control and to lessen external beam radiation sequelae, we started high dose rate interstitial brachytherapy in 1993. Patients and Methods: From March 1993 through April 2001, we treated 51 lesions of oropharynx squamous cell carcinomas in 50 patients (45 males and five females). Based on Pernot’s criteria, we classified 29 lesions as group A (soft palate, tonsil and posterior pillar carcinomas), 13 as group B (anterior pillar and glossosoftenous sulcus carcinomas) and nine as group C (base of tongue and vallecular carcinomas). Primary tumors are categorized as T1; six, T2; 32, T3; 12 and T4; one. For implants, we applied Nance school techniques. During implant, we inserted metal markers around the tumor to reconstruct CTV by X-ray films. At planning, we optimized dwell times manually with two through 81 months with the median 20 months. Conclusion: We achieved 85.7% of the five-year local control rate for the entire group. Five-year cause specific and overall survivals were 85.5% and 57.3%. Transient soft tissue necrosis (mostly superficial erosion) was observed (range: 0-16). No grade 4 toxicity was observed. Considering the tumor to reconstruct CTV by X-ray films. At planning, we optimized dwell times manually with two through 81 months with the median 20 months. Conclusions: We concluded that reducing the overall treatment time using postoperative accelerated RT by weekly concomitant boost (6 fractions per week) is easily feasible with a good local control, and acute and late RT-related toxicity is highly acceptable. Given the disease progression pattern (distant metastases), adjuvant chemotherapy should be considered.
837 Poster
Accelerated radiotherapy combined with chemotherapy in the treatment of anaplastic carcinoma of the thyroid
1Institut Gustave-Roussy, Villejuif, France
Purpose: To analyze toxicity and efficiency of a protocol combining surgery, chemotherapy and bi-fractionated radiotherapy (RT-CT) in anaplastic thyroid carcinoma (ATC). Patients and methods: 32 ATC patients (pts) with a mean age of 60 years (40-79) were treated in a phase I-II trial between 1990-2001. Tumor extend was macroscopically complete in 14 pts. Two cycles of chemotherapy combining doxorubicin (60 mg/m2) and cisplatin (120 mg/m2) every 4 weeks performed before RT-CT in 22 and after RT-CT in 3 and tumor resection was planned in 14 pts. Two cycles of chemotherapy combining doxorubicin (60 mg/m2) and cisplatin (120 mg/m2) every 4 weeks performed before RT-CT in 22 and after RT-CT in 3 and tumor resection was planned in 14 pts. Two cycles of chemotherapy combining doxorubicin (60 mg/m2) and cisplatin (120 mg/m2) every 4 weeks performed before RT-CT in 22 and after RT-CT in 3 and tumor resection was planned in 14 pts.