Patients and methods: 26 patients with locally advanced squamous cell carcinoma of the oral cavity and the oropharynx were treated with external beam radiotherapy up to doses of 66-70 Gy and received concomitantly 2 mg/m2 paclitaxel intravenously after appropriate premedication three times a week 1 hour prior radiotherapy. Response rates according to WHO criteria, side effect according to the National Cancer Institute Common Toxicity Criteria and overall and progression free survival were evaluated.

Results: All of the patients completed the therapy. Median radiation dose was 66 Gy, paclitaxel dose 40 mg/m2 and treatment duration 54 days. 12 weeks after completion of therapy complete response was 30,8%, partial response 34,6%, stable disease 11,5% and progressive disease 23,1%. The median follow-up time was 25 months (9-36). At two years 13 (50%) of the patients was alive 10 (38,4%) without evidence of disease, 1 of whom with a secondary oesophageal cancer. The estimated median overall survival was 22 months (CI 14,2-34,6) the median progression free survival 12 months (CI5,2-18,8). We observed four grade 4, fourteen grade 3 and a number of grade 1-2 side effects. There was no treatment related death.

Discussion: Our regimen resulted a worse response rate than the aggressive chemoradiation protocols treating the same disease however the two-year survival is comparable with the results of other studies. The advantages of our schedule are that it is well tolerated, easy to perform on an outpatient basis, resource effective and do not deteriorates the general condition of the patients, therefore successive therapy can be carried out immediately if necessary. We intend to evaluate the effectivity of this treatment in a study comparing radiotherapy with paclitaxel sensitisation versus radiotherapy alone.

387 POSTER

Prognostic impact of complete remission after radical radiotherapy of oropharyngeal cancer. A retrospective study of the Cancer Centre in Warsaw data, 1984-1995

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This retrospective study was done to estimate the outcomes of patients with squamous cell carcinoma of oropharyngeal region treated in the Department of Radiotherapy, Cancer Centre in Warsaw, Poland, between February 1984 and December 1995 with radical irradiation.

The importance of tumour remission for patients overall survival and time to progression were analysed. 241 patients with histologically proven squamous cell carcinoma of the oropharynx were treated with definitive megavoltage therapy. The follow-up time was at least 5 years.

The median total dose was 66 Gy delivered with 2.0 Gy fraction 5 times weekly. The great part of clinical material consist of advanced cases T3,T4 =152 patients [63%] and N2,N3 = 89 patients [41%]. The complete remission [CR] at the end of treatment was observed in 175 [73%] patients. 5 years overall survival probability for the whole group of patients was 27%. Probability of 5 years survival for patients with CR was 36% and for patients with non CR 2% $p<0.0001$. Analysis of time to progression or death of patients showed for CR patients 32% 5 years probability and for non-CR 0% $p<0.0001$. N-stage end hemoglobin concentration were significantly important for overall survival $p= 0.002$, $p< 0.001$ respectively. Interruption during the treatment reduced 50% probability of CR at the end of treatment $p=0.04$.

Conclusion: The strongest clinical predictor of survival and time to progression was the degree of tumour remission at the end of radiotherapy. Patients with poor response to radiotherapy should be recommended for salvage surgery.

388 POSTER

Alternating radio-chemotherapy with docetaxel/DDP and involved field radiotherapy for recurrent, inoperable, and previously irradiated head & neck cancer

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Purpose: Loco-regional recurrences of head&neck cancer after adjuvant irradiation or primary radio-(chemo)therapy represent a therapeutic dilemma. Median survival with symptomatic therapy is 4 months. The major cause of death is uncontrolled local tumor growth. In most cases, a second course of high dose radiotherapy cannot be delivered due to limited normal tissue tolerance. Response to simultaneous chemo-radiation protocols is generally high, but considerable problems with mucositis occurred. To decrease oral toxicity an alternating chemo-radiation protocol was tested.

Methods: 21 pat. with inoperable, and previously irradiated head&neck cancer, SCC, GII-III, average tumor diameter 4.6cm (range 2-12cm), underwent alternating radio-chemotherapy with docetaxel 60mg/m2 d1 + DDP 15mg/m2 d2-5 in 1st, 4th, and 7th week and involved field irradiation with 5x 2.0Gy in 2nd-3rd and 5th-6th week to 40.0Gy total dose (ICRU50). Reduction of docetaxel to 50mg/m2 in pat. 13 to 21. Median age 56 years, 17 male, KI ≥70%, 15x nutritional deficiency, pre-treatment: 5x primary accelerated radio-(chemo)therapy 70.6Gy, 15x adjuvant irradiation 60-66Gy.

Results: Docetaxel/DDP chemotherapy was given in 46/41 of 63 planed courses, reduced doses in 7/5 courses, respectively. Chemotherapy was interrupted due to DDP induced renal toxicity WHO°II in 2 pat., 1x ForrestII bleeding of ulcus duodeni, and 1x docetaxel hypersensitivity. Alternating radio-chemotherapy was interrupted due to one large bowel perforation (deceased at home 2 months later for unknown reason), and in 2 pat. with rapid tumor shrinkage resulting in a pharyngocutaneous fistula and 1 lethal tumour bleeding. WHO °III-IV toxicity occurred in 9/18 evaluable pat.: 3/18 mucositis, 8/18 leukopenia (twice with neutropenic fever). Anemia WHO°II required blood transfusion in 5/18 pat. Response in 18 eligible pat.: 7x CR, 7x PR, and 4x SD. Median time to local progression was 12 months, and median disease specific survival 9 months. 9 pat. died of progressive local tumor, 3 due to distant metastasis, 1 lost to follow up 7 months after therapy with NED.

Conclusion: Alternating radio-chemotherapy in inoperable, recurrent, and previously irradiated head&neck cancer resulted in a 78% overall response rate (14 of 18 patients with CR or PR) with acceptable oral toxicity. However substantial systemic toxicity was observed with docetaxel 60mg/m2 d1 + DDP 15mg/m2 d2-5, requiring a dose reduction of docetaxel to 50mg/m2.

389 POSTER

Hyperfractionated irradiation with concurrent chemotherapy (Carboplatinum) for locally advanced head and neck cancer

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Background: Radiotherapy is often the primary treatment for advanced head and neck cancer, but the rates of locoregional recurrence are high and survival is poor. We investigated whether hyperfractionated irradiation plus concurrent chemotherapy (combined treatment) is effective.

Methods: 66 patients with advanced head and neck cancer who were treated with hyperfractionated irradiation and Carboplatinum at the university of Goettingen between August 1987 and May 1994. The chemoradiotherapy schedule was composed of two fractions per day, separated by 6 h. intervals. Each fraction consisted of 210 cGy preceded by a dose of 50 mg/m2 carboplatinum i.v. daily. A total radiation dose of 5670 cGy was applied in 6 weeks as a split course regimen. A break of 2 weeks was planned between the 2 first weeks and the 2 last weeks. Treatment was given 4 days a week. Both the neck and the primary tumour were treated up to 5670 cGy.

Results: All patients in both treatment groups had unresectable disease. At two years the rate of overall survival was 20 percent and 10 percent at 10 years. Confluent mucositis developed in 80 percent of the patients. Skin fibrosis occurred in three patients. Our results are inferior compared to published studies. There are several explanations for this. The radiotherapy fractionation was not optimal with a long break (2 weeks) during the treatment, which could allow for tumour cell repopulation. Furthermore, the patient selection has been less favourable compared to published prospective studies. In our institution, all patients who were medically operable have been treated with local CO2-laser resection. Therefore the group of patients treated with a combination of primary radiation with chemotherapy are representing a selected group with unfavourable risk factors, such as bad general bad condition, concurrent diseases, advanced tumours ineligible for laser resection. Patients with N2 or N3 disease represented 85% of our population.

Conclusions: This combined treatment with daily high dose radiotherapy for advanced head and neck cancer is less efficacious than conventional combined radio- and chemotherapy.