With mean age 57 years, M/F 69/31%, Larynx and Hypopharinx were the most common primary sites. Only T3–T4, N0–N3, M0 pts. were treated. After 2 two cycles we obtained an overall response (OR) of 79% (33/42) with 7% of CR. At the end of neoadjuvant chemotherapy (3 cycles) 9/29 were in PR and 16/29 CR (55%) with OR of 86%. After consolidation radiotherapy a total of 64% (16/25) obtained CR with organ preservation. Main toxicity was grade 1–2 mucositis and neutropenia with no treatment related deaths. With a median follow up of 21 months (6–105), 44% (6/16) have relapsed, median disease free survival was 59 months (IC 95% – 32–85%) and the median overall survival was 71 months (IC95% 44–99%). With this strategy we were able to preserve organ in an important group of patients, however future research should include more efficient neoadjuvant treatments.

658 PUBLICATION

Results of simultaneous radiochemotherapy vs. concomitant boost radiation in patients with inoperable cancer of the head and neck

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Purpose: This prospective but not randomised study compares the results of simultaneous radiochemotherapy (RCT) to those of radiation alone (concomitant boost therapy, CBT) in the first-line therapy of inoperable head and neck cancer.

Methods: From 1/93 to 3/99, 76 patients were treated with a combined-modality therapy containing cis-DDP and 5-FU plus 70.2 Gy (accelerated split-course); from 1/95 to 3/99, additional 28 patients with contraindications against chemotherapy received accelerated radiotherapy alone (CBT) to a total dose of 72 Gy. Toxicities were prospectively recorded using a standardised RTOG/EORTC compatible form.

Results: Median follow-up amounted to 10 months. Most tumours responded well to therapy (CR + PR: RCT: 67%, CBT: 56%). 2-year recurrence free survival was 36% (RCT) resp. 30% (CBT); p = 0.28; after remission, 2-year recurrence free survival was 39% (RCT) resp. 35% (CBT); p = 0.82. 2-year tumour-specific survi-val was 40% (RCT) resp. 33% (CBT); p = 0.60. Acute and late toxicities did not differ significantly in both arms. 6/76 RCT pats. and 1/28 CBT pats. experienced grade III fibrosis, 3/76 and 0/28 grade III xerostomia. Grade IV late effects remained casuistic (1 fistula).

Conclusion: Both therapy concepts yield high remission rates with moderate toxicity. Nevertheless, median time to recurrence remains short. We were not able to demonstrate any difference between both schemes concerning toxicity (except chemo-associated), local control and survival.

659 PUBLICATION

Analyses of cervical lymph node metastases in oral squamous cell carcinoma

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Purpose: We studied the influence of regional lymph node metastases in patients with oral squamous cell carcinoma (SCC) on their prognosis.

Method: A clinicostatistical investigation was carried out in 349 patients with oral SCC in our hospital from 1978 through 1992. Of all 349 patients, metastases to the cervical lymph node were histologically confirmed in 99 patients (28%).

Result: The 5-year survival rate of all patients was 74%, and that of patients with lymph node metastases was 49%. However, the 5-year survival of patients with metastases limited to sub-mandibular nodes was 61%.

Conclusion: Neck node level is important in prognosis.

660 PUBLICATION

Preoperative concurrent paclitaxel, carboplatin and radiotherapy in advanced operable cancer of the oropharynx and oral cavity: A phase II evaluation

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Purpose: Taxol and carboplatin have both demonstrated excellent radiosensitization through two mechanisms, namely cell blockage in G2-M phase and inhibition of DNA repair respectively. A prospective Phase II evaluation was initiated using Paclitaxel and carboplatin (CBDCA) with concurrent conventional fractionated external beam radiotherapy followed by surgery of the primary tumor and the regional neck nodes.

Methods: From 6/98–2/99, 12 patients received 5 cycles of weekly Paclitaxel (40 mg/m^2), CBDCA (AUC of 1.5) with conventional radiotherapy (40c Gy). Within three to four weeks after chemoradiotherapy, resection of the tumor with neck dissection in those patients with palpable lymph nodes was performed. The patient characteristics were as follows: Men 9, women 3; mean age 54 (range 4071); Stage III 3, Stage IV 9. Site: oropharynx 4, oral cavity 8.

Results: Twelve patients were evaluable for toxicity and response. The clinical response was as follows: Complete response (CR) 7/12 (58%); partial response (PR) 5/12 (42%). Nine patients (75%) were evaluable for pathologic response after surgical resection. The pathological response was as follows: pCR 5/9 (55%); pPR 4/9 (45%). CTC grade 2 or 3 mucositis occurred in all twelve patients. Other grade 2 or 3 toxicity include skin 50%, leucopenia 17%.

Conclusion: Concurrent Paclitaxel, carboplatin and radiotherapy as preoperative treatment resulted in excellent clinical and pathological responses. The study is ongoing with a projected number of 30 patients.

661 PUBLICATION

3-D conformal radiotherapy for nasopharyngeal carcinoma: Parotid gland sparing technique

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Purpose: We conducted this study to explore a new parotid gland sparing technique in 3-D conformal radiotherapy (3-D CRT) in an effort to prevent the radiation-induced xerostomia.

Methods: We performed three different planning for four clinically node-negative nasopharyngeal cancer patients with different location of tumor, and intercompared the plans.

Total prescription dose was 70.2 Gy to the isocenter. For plan I, 2-D parallel opposing fields, a conventional radiotherapy technique, were employed. For plan II, 2-D parallel opposing fields were used up until 54 Gy and afterwards 3-D non-coplanar beams were used. For plan III, from the beginning of the treatment 54 Gy was delivered by 3-D conformal 3-port beams (AP and both lateral ports with wedge compensator; shielding both superficial lobes of parotid glands at the AP beam using BEV) and early spinal cord block (at 36 Gy). And bilateral posterior necks were treated with electron. After 54 Gy, non-coplanar beams were used for cone-down plan. We intercompared dose statistics and dose volume histograms (DVH) of tumor and normal tissue and NTCP of parotid glands for the three plans.

Results: For all patients, plan III was comparable to the other plans in target volume dose statistics but it has more homogenous target volume coverage. Plan III was most superior to the other plans in parotid glands sparing (mean volume receiving 46 Gy; 99%, 97%, 66% for each plan I, II and III). Plan III showed the lowest NTCP of parotid glands in all patients (range of NTCP; 82–100%, 76–100%, 44–73% for each plan I, II and III).

Conclusion: The new technique employing 3-D conformal radiotherapy at the beginning of radiotherapy and cone down using non-coplanar beams with early spinal cord block is highly recommended to spare parotid glands for node-negative nasopharygeal cancer patients.

662 PUBLICATION

Prophylactic selective neck dissection in oral cancer

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Purpose: To evaluate the role of prophylactic neck dissection in early staged oral cancer and the contribution to neck control.

Methods: From January 1996 to June 1998, 207 clinical staged T1-2N0 oral cancer patients receiving primary radical operation (OP) in Chang Gung Memorial Hospital-Linkou were recruited for study. 125 of them also received prophylactic supra-omohyoid neck OP. The numbers of the patients according to cancer anatomic sites were tongue 99, mouth floor 6; lip 24; buccal 58; gum 6, hard palate 8 and retromolar 6. When grouping with treatment modalities, 202 patients received OP alone, 4 patients with pathologically diagnosed neck lymph node metastasis received OP and post-OP radiotherapy, and 1 patient with lymph node metastasis and extracapsular spreading received OP and postOP concomitant chemoradiotherapy. The median follow up time for oral cancer patients was 1.5 years (from 0.6 to 2 years).