

oxygenation status (OS) and intrinsic radiosensitivity (IRS), both for tumor tissue (IRS_T) and for normal tissues (IRS_N), in H&N cancer. To date, none of these tumor and host related factors does unambiguously predict outcome if assessed prior to the initiation of radiation treatment. To do so, many more patients, with well defined patient and treatment characteristics, will have to be included in prospective studies to validate the predictive power of those tests. Moreover, resistance to irradiation being defined by a variety of factors, efforts should be devoted to the simultaneous assessment of different "predictive" parameters, independently affecting locoregional control in H&N cancer. New techniques based on molecular biology should be intensively investigated. For those who think they found the Holy Grail, large scale prospective studies, quality control and determination of variability are prerequisites that have not yet been fulfilled.

1307

Surgical treatment of regional neck nodes in the head and neck squamous carcinoma

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Purpose: Most patients with head and neck malignancy die of uncontrolled disease in the neck and 30% of patients with head and neck cancer have a neck node metastases at presentation of their primary tumour. Control of neck node disease is, perhaps, the most important aspect in the control of head and neck cancer.

Methods: The University of Liverpool head and neck data base contains some 6,000 patients and has been used to provide data for this presentation. The various methods of treating neck node metastases will be described with special reference to the surgical management of neck node metastases. Statistical analysis of the results was calculated using the SAS software.

Results: 919 patients with carcinoma of the larynx, hypopharynx, oral cavity and oropharynx are studied. Of 955 laryngeal cancers, 202 had neck node metastases at presentation. For laryngeal cancer 50% of patients were treated by radical neck dissection with a 46% 5 year survival. The corresponding figures for the other sites were, for hypopharyngeal cancer, 33% with a 42% 5 year survival, for oral cavity cancer 41% 5 year survival, for oropharyngeal cancer, 21% with a 55% 5 year survival. Full statistical details will be discussed at the presentation, including the lymph node groups and levels that are of significance in head and neck cancer. Adjuvant radical radiotherapy reduces the risk of recurrence of neck disease in a patient who has had a radical neck dissection. For the patient who has had radical neck treatment a recurrence has a very poor survival, in the region of 10%, even with salvage treatment.

Conclusion: Radical neck dissection, in spite of having been described over 100 years ago, still offers the best treatment in oncological terms for neck node metastases from head and neck cancer. Its recent combination, with post operative radical radiotherapy, has improved the results still further. In the case of head and neck malignancy, treatment of regional lymph nodes is a very worthwhile exercise offering good cure rates.

1308

A review of the fractionation trials in head and neck cancer

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Radiotherapy (RT) is an efficient, conservative treatment in many cases of head and neck carcinoma. Further optimization of this modality may come from advances in RT dose planning and delivery, from a better understanding of the tumor biology of the disease, and/or from advances in radiation biology of normal tissues and tumors. In this lecture we look at the last of these areas. In the 1980's, several large clinical trials were initiated in Europe and the US, including trials by the EORTC and the RTOG and large trials based mainly in the UK (CHART) and in Denmark (DAHANCA 6&7). Two prototypical modifications of RT were tested: accelerated fractionation (AF) in which the overall treatment time is shortened relative to that of conventional regimens, and hyperfractionation in which the dose per fraction is reduced below 1.8 Gy. Early results from these trials are now emerging and these will be discussed in the lecture. Both AF and HF have resulted in significant therapeutic gains. However, the limits on how far AF and HF may be pushed are also becoming clear. Open questions at this time will be identified and new strategies for biologically based optimization of RT in head and neck cancer are discussed.

1309

Chemotherapy in locally advanced head and neck squamous cell carcinoma (HNSCC): Preliminary results of a meta-analysis using individual patient data of randomized trials

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Purpose: In spite of more than 70 randomized trials during the past 30 years, it remains controversial whether chemotherapy (CT) can improve survival for HNSCC. To test the hypothesis that CT improves moderately survival, a meta-analysis has been performed.

Methods: Randomized trials (1965-1993) comparing loco-regional treatment to same treatment plus CT were eligible. Updated individual data were collected.

Results: 76 trials (11 650 patients) were identified. In January 97, data from 51 trials (74% of the patients) were available for analysis. Among these trials, the timing of CT was: neoadjuvant in 53% of patients, concomitant in 35% and adjuvant in 12%. The type of CT was: mono-CT in 44%, poly-CT with platin in 44% and poly-CT without platin in 12%. Data on age, sex, site of tumor (oral cavity 32%, oropharynx 30%, hypopharynx 17%, larynx 15%) were available for 99% of the patients. This proportion was 98% for stages (stage III 34%, stage IV 56%) and 51% for performance status. Overall 5-years survival was 30%.

Conclusion: The preliminary results of this meta-analysis will be presented at the meeting. These results will be based on the above data and will also include additional data from trials currently under checking.

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1310

Non-surgical treatment in primarily resectable T3T4 larynx and hypopharynx SCC

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For a long time, either radical surgery, S, (most often with postoperative irradiation, XRT) or definitive XRT, (with S in reserve for salvage) were the two preferred treatments for advanced but resectable larynx and hypopharynx SCC. Unfortunately no randomised trial has compared both approaches.

The appearance, in the early 80s, of active chemotherapy, CT, and the frequent correlation between chemo and radiosensitivities have reopened the discussion with a new strategy: induction CT followed, in good responders, by XRT or, in poor responders, by S. To date, two randomised trials have been published: the VA trial, in the USA, on larynx and the EORTC 24 891, in the EEC, for hypopharynx. In both trials there was no difference in survival between this experimental approach and the standard treatment (S + postop XRT) but 50% to 66% of survivors could retain their larynx. Similarly, notable advances had occurred in XRT practice: new fractionation, acceleration, both or, in a different approach, concurrent administration of XRT and CT. Clearly, there are different ways to preserve the larynx function which are to be compared. As a result, this approach must still be considered as experimental.

1311

Resection margins in melanoma surgery and the value of elective lymphnode dissection

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Results of prospective randomized clinical trials have shown that 1 cm's margin for melanomas ≤ 1 mm's in thickness and 2 cm's margins for melanomas ≤ 2 mm's thickness are oncologically safe and therefore recommended. Effectiveness of resection margins for tumours > 2 mm are at present being evaluated in ongoing clinical trials. Elective lymph node dissection (ELND) for low risk melanomas are not indicated. The role of ELND in the treatment of high risk lesions remains controversial. Its benefit on long term survival having in mind morbidity of this procedure is not unanimously accepted. A novel technique of staging the disease by preoperative lymphatic mapping followed by elective lymph node biopsies gains wide acceptance. This technique can possibly better outline a subset of patients who might benefit of ELND and/or adjuvant therapy. This benefit however has to be proven in ongoing clinical trials.