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PRELIMINARY RESULTS OF COMBINED RADIOTHERAPY AND CHEMOTHERAPY IN ADVANCED HEAD AND NECK CANCER

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The prognosis of patients with locally advanced head and neck tumours is poor. An improvement with simultaneous radiotherapy seems to be possible. We investigated 63 patients in order to examine the effect and toxicity of an combined radio-chemotherapy with cisplatin (n=23) or carboplatin (n=40) in head and neck tumours stage III and IV. Cisplatin was given as a low dose therapy simultaneous to radiotherapy. The tumour response rate was 87 % with 25 % CR and 63 % PR. Hematotoxicity and nephrotoxicity were critical side effects during the treatment. In patients received carboplatin the response rate was 100 %, 30 % CR and 70 % PR. There were no critical systemic side effects. We observed temporary severe mucositis WHO grade III in 90 %. Good results we observed with continuation of the Carboplatin therapy in three weekly intervals in patients with PR after simultaneous radio-chemotherapy. Response rates and toxicity we observed show that the combination of carboplatin and radiation is an effective antitumour therapy connected with less systemic toxicity than cisplatin. The benefit of continuation carboplatin therapy after PR must be investigated in further studies.

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NASOPHARYNGEAL CARCINOMA: SURVIVAL ANALYSIS AND PROGNOSTIC FACTORS.

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Between January 1975 and December 1989, 82 adult patients, 67 male, 15 female, with the diagnosis of nasopharyngeal carcinoma were treated with external radiotherapy (RTX) +/- chemotherapy (CTX). The median age of the group was 40 years (range 18-68). According to AJC classification, there were 6 patients with Stage I, 5 with Stage II, 12 with Stage III and 59 with Stage IV. The histological diagnosis was undifferentiated carcinoma in 73 and squamous cell carcinoma in 9 patients. RTX was delivered using a Cobalt-60 teletherapy unit and doses of nasopharynx ranged between 50.00-70.00 Gy and those of neck doses ranged between 45.00 - 65.00 Gy with conventional fractions. 59 patients were treated with RTX alone and 23 with RTX and cis-platinum based combined CTX. Overall and disease free actuarial survival at 5 and 10 years were % 67, % 46 and % 37, % 33, respectively. Factors with adverse effect on prognosis were locally advanced disease (Stage III, IV vs. Stage I, II, p=0.03) and cranial nerve palsy (p=0.05). From our study, we got the impression that prognosis is better in female patients compared to males and in those below 40 year of age compared to older ones, though the difference between the groups is not statistically significant.

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IRIDIUM-192 INTERSTITIAL IMPLANT IN THE TREATMENT OF ADVANCED SQUAMOUS CELL CARCINOMA OF THE TONSIL REGION: TREATMENT PLANNING, TECHNIQUE, AND CLINICAL RESULTS.

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CT treatment planning was used to improve interstitial brachytherapy technique, dosimetry, and clinical outcome in a series of ten patients with advanced tonsillar carcinomas. Target areas were outlined on sequential CT images creating a 3-dimensional target volume. Key implant parameters, minimum target absorbed dose, implant uniformity, and treatment-volume to target-volume ratio were obtained by superimposing anatomic imaging data with isodose curves. Selective seed positioning and differential iridium seed activity improved implant uniformity and decreased the treatment-volume to target-volume ratio. Dosimetry analysis showed inadequate dose coverage in the superior part of the target (infero-lateral nasopharyngeal mucosa), therefore, a mandibular ramus loop tube has been added that improves coverage of that region. There have been no local failures, but median followup time is short, 20 months as of March 1993. Anatomy-based brachytherapy treatment planning has made dose prescription more objective, improved implant technique and parameters related to implant quality, and is expected to result in better therapeutic outcomes in head and neck cancer treated with brachytherapy.

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HIGH COMPLETE RESPONSE IN ADVANCED NASOPHARYNGEAL CARCINOMA

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Undifferentiated nasopharynx carcinoma (UNPC) is common among mediterranean Jews. The 5-year survival rates are 15%-50%, when treated with radiotherapy alone.

We report a pilot study of 20 patients with advanced UNPC, treated by a combination of cisplatin 100mg/m² on day 1, and 5-FU 1000 mg/m² by continuous infusion on days 1-5 every 21 days for 3 cycles before definitive radiotherapy with 60-70 Gy.

Ten of 20 patients (50%) achieved a clinical complete response and 19 of 20 patients (95%) had a major objective response after chemotherapy. At the end of radiation, 18 assessable patients (2 were lost to follow up), were in complete response.

We believe that such a complete response rate in a high-volume disease with the use of combined modality treatment may indicate a therapeutic gain in NPC.

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PROGNOSTIC FACTORS IN ADVANCED HEAD AND NECK CANCER PATIENTS WITH CONSERVATIVE TREATMENT:

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In spite of the high rate of favorable response to neoadjuvant chemotherapy (NCT) programme in the conservative treatment of head and neck cancer (neoadjuvant chemotherapy plus radical irradiation therapy) there is a reduced definitive control rate. There are not satisfactory reasons to understand this paradox clinical behaviour. There must be identified the group of patients where complete response means consistent probability of definitive control.

We have analyzed the evolution of 103 patients with advanced head and neck cancer (III and IV stage) with conservative treatment (NCT x 2-3 plus external radiotherapy 67 Gy mean dose level). After 78 months of mean follow-up we have correlated the overall survival with thirteen prognostic factors by univariate and multivariate analysis. We have found that: 1) tumor dose (level 65 Gy). 2) tumor clearance velocity (complete remission after only the first course of NCT). 3) tumor locations (better oropharynx and nasopharynx), lead us to identify patients with high probability tumor cure.

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ACCELERATED HYPERFRACTIONATION PLUS CONCOMITANT CISPLATIN FOR LOCALLY ADVANCED HEAD AND NECK CANCER (LAHNC)

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From February 89 to September 91, 40 patients (pts) with LAHNC have been treated with: Radiation Therapy (RT) 160 cGy fractional doses given twice daily to a total dose of 6720 cGy to 7200 cGy in 6.5 weeks in a split course, and cisplatin (20 mg/sqm/d x 5 d, continuous perfusion) concomitantly. Pts with bulky disease received neoadjuvant chemotherapy (cisplatin and 5FU). N2-3, functional neck dissection after 4 weeks of RT. **Characteristics:** M/F 38/2. Median age 57y (range 30-80); larynx 13, oral cavity 10, oropharynx 8, other locations 9. Stage IV: 19 stage III 15 and stage II 6. Neoadjuvant CT: 22 pts. Ipsilateral functional neck dissection: 7 pts. **Results:** 9/22 CR, 10 PR after CT. After RT 36/40 CR, 3 PR, 1 NR. With a median follow-up 24 months (16-49) 25 pts in CR (62.5%). 1 and 2 years actuarial survival 82 ± 11%, CI: 95% and 58 ± 19%. 1 year local control 67 ± 14%. **Toxicity:** grade 2, 20%; grade 3, 40%; grade 4, 40%. Delay 2nd course of RT: 18 days (14-43). **CONCLUSIONS:** This schedule obtains a high rate of CR. Longer follow-up is necessary to evaluate the survival impact.