

439

PUBLICATION

AN EPIDEMIOLOGICAL STUDY OF SQUAMOUS CELL CARCINOMAS OF HEAD AND NECK REGION

S. Kurtulmaz, H.S. Erkal, M. Serin, A. Çakmak

Department of Radiation Oncology, Ankara University, Faculty of Medicine, 06100, Ankara, Turkey

Of 1518 patients admitting to Department of Radiation Oncology from 1978 to 1994 with cancers of head and neck region, medical reports of 1293 patients with squamous cell carcinomas were retrospectively evaluated. The patients were classified according to their age, sex, tumor localization and stage of tumor at presentation. Staging was performed according to TNM classification by American Joint Committee (AJC). 1181 patients (91.3%) were male and 112 (8.7%) were female, with a male:female ratio of 10.5:1. The tumor was localized in larynx in 919 (71.1%) patients, nasopharynx in 131 (10.1%), oral cavity in 59 (4.6%), lip in 54 (4.2%), oropharynx in 33 (2.5%), hypopharynx in 31 (2.4%), paranasal sinuses in 20 (1.5%), external auditory canal in 17 (1.3%) and nasal cavity in 5 (0.4%) and other regions in 24 (1.9%) patients. Peak incidence was similar for all localizations and was observed in the fifth decade. Larynx cancers were most commonly localized in the supraglottic region (59.5%), followed by glottic (39.7%) and subglottic (0.8%) regions. Seventy-four percent of glottic larynx carcinomas were either stage I or II. Invasion of cartilage was relatively more common with supraglottic carcinomas than with glottic and subglottic carcinomas. Male:female ratio for larynx carcinomas was 29.6:1.

440

PUBLICATION

ORAL TONGUE CANCER: LONG-TERM RESULTS WITH RADIATION THERAPY

H. Hamidou, M. Benmiloud, F. Pene, E. Touboul, M. Schlienger, A. Laugier

Department of Radiation Therapy, Hôpital Tenon, 75020 Paris, France

Background: Even with the advent of neoadjuvant chemotherapy or concomitant chemoradiotherapy, little progress has been made in therapy of oral tongue cancer. So it could be interesting to reassess definitive radiation therapy value in this pathology.

Purpose: Evaluate our long-term results in oral tongue cancer.

Materials and methods: Forty-four patients with epidermoid oral tongue cancer were successively treated in our department from 1972 to 1979. There were 38 men, 6 women. Age ranged from 43 to 78 (mean 60). There were 17 T1, 20 T2, 7 T3 and 5 Np. They were treated with brachytherapy (24 cases) or radiation therapy + brachytherapy (20 cases) on their primary. Radical neck dissection was conducted before or after treatment of the primary in 22 cases. Endpoints were local control, metastasis, second primaries, survival and tolerance of treatment.

Conclusion: Despite a good local control with radiation therapy, distant metastasis and second primaries result in a very low survival. Alternative therapies (as retinoids?) are still awaited in this bad prognosis alcoholism and tobacco use induced pathology.

441

PUBLICATION

SECOND PRIMARY CANCER OF THE LARYNX IN PATIENTS WITH LUNG CANCER

Y.P. Talmi, Y. Merrick, L. Bedrin, A. Waller, Z. Horowitz, A. Adunski, H.J. Brenner, J. Kronenberg

Department of Otolaryngology-Head and Neck Surgery, Oncology, Hospice Department of Geriatrics, the Chaim Sheba Medical Center, Tel Hashomer, Israel

The incidence of synchronous or metachronous second primary malignancies (SPM) arising in the lungs following laryngeal cancer varies from

1.4–10.6% of cases. Conversely, to date, only 15 cases of a laryngeal SPM following lung cancer have been reported. We have conducted a prospective, preliminary study in 23 terminal lung cancer patients in a hospice setting in order to assess the incidence of a laryngeal SPM. No laryngeal tumors were observed. Even if under-diagnosed and under-reported, this entity is anecdotal in nature, even when considering the overall poor general survival rates of lung cancer. A lung SPM following laryngeal cancer may be explained by common risk factors such as smoking. However, this plausible theory of "field cancerization" does not seem to work both ways. Multimodality treatment or genetic factors may also play a role in the sequence of mucosal changes leading to neoplasia. Our results are presented in light of the general incidence of SPM in our country. Possible hypothesis for the lack of laryngeal SPM following lung cancer will be discussed.

442

PUBLICATION

CHARACTERISTICS OF IRRADIATION INDUCED CELL DEATH MODE OF A HUMAN SALIVARY CELL LINE

R. Nagler, J. Katz, D. Laufer, A. Nagler

Department of Maxillo-facial and Oral Surgery, Rambam Medical Centre, Haifa, Israel

Irradiation induced injury to the major salivary glands is a known complication of radiotherapy. We used HSG cell line, which is derived from an irradiated human submandibular gland, as an *in vitro* model for the studying this damage. Ninety-six h post irradiation of HSG cells at log phase stage of growth the LD₅₀ was found to be 5–7.5 Gy, with a cell death rate of 75%, resulting from 10–20 Gy. In contrast cells at the confluent stage of growth demonstrated radioresistance. However, irradiation latent damage was again observed when these irradiated cells were reintroduced into log phase growth. Incubation of the HSG cells with INF- γ for 2–24 h partially minimized the irradiation induced injury but incubation with TNF- α , Interleukin-6 or heat shock protein did not reduce the damage. In summary, irradiation induced damage to HSG cells is in accordance with the delayed reproductive cell death mode.

443

PUBLICATION

CISPLATIN AND IFOSFAMIDE IN ADVANCED POORLY DIFFERENTIATED CARCINOMA OF THE NASOPHARYNX

P. Ruff, M. Stein, E.A. Weaving

Division of Haematology/Oncology, University of the Witwatersrand, Johannesburg, South Africa

From 1990–1995, 19 males and 8 females (median age 29 years) presented with advanced nasopharyngeal carcinoma. 12 had bony metastases and 15 advanced local disease. 20 patients received cisplatin 50 mg/m² and ifosfamide (with mesna) both 3 g/m², all daily for 2 days. There were 2 CRs (local disease) and 10 PRs (4 on bone scan, 6 of local disease), with an overall response rate of 60%. The median time to treatment failure was 30 weeks and median survival 60 weeks, with no difference between those with bone metastases and those with local disease only. 10 patients had nausea and vomiting, 3 headaches and 13 developed Grade III–IV neutropenia (median WBC 1.75). There were 2 admissions and 1 death from neutropenic sepsis. Cisplatin and ifosfamide is well tolerated and promising in this aggressive form of head and neck cancer seen in young patients in Africa and Asia.

Oncogenes and suppressor genes

444

EACR Award lecture

A MOLECULAR GENETIC VIEW OF CANCER PROGRESSION

O.-P. Kallioniemi

Lab. Cancer Genetics, Inst. of Medical Technology, Univ. Tampere, Box 607, FIN-33101 Tampere, Finland

Cancer development is thought to be caused by a sequence of genetic changes, but the details of these genetic progression events are only par-

tially understood and many important cancer genes still remain to be cloned. This presentation will highlight new strategies for dissecting the multi-step progression of breast and prostate cancer.

Comparative genomic hybridization (CGH) has enabled the identification of chromosomal regions likely to harbor important genes for tu-