

exposed to magnetic fields of $\geq 0.2 \mu$ or cumulative exposure of $\geq 0.4 \mu$ T years. The preliminary results of a similar cohort of adults do not point to an increased cancer risk, either. The number of children exposed to stronger magnetic fields may be too small to draw final conclusions, but that among the adults is not (8,554 cancer cases observed during the follow-up time). An association between the occupational exposure to electromagnetic fields and leukaemia and brain cancer obtained earlier in a Finnish study and some other studies is not confirmed in several more recent studies.

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NO ABSTRACT

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CONSERVATIVE TREATMENT FOR T1T2 SUPRAGLOTTIC SCC

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From 1974 to 1983, 240 previously untreated patients (pts) presenting with T1 or T2 (AJC 1992) supraglottic SCC were treated either by partial surgery (PS = 163 pts: 53 epiglarynx, 110 vestibule) or by definitive irradiation (XRT = 77 pts: 52 epiglarynx, 25 vestibule). There were 130 supraglottic laryngectomies, 27 hemilaryngopharyngectomies and 6 subtotal laryngectomies while 62 pts had postoperative XRT at primary site and 71 on the neck. There was no postoperative death and local failures occurred in 8% of cases, neck recurrences in 8%, distant metastases in 10% while 31% of pts developed metachronous cancers. The 3 yr survival was 75% (81% for endolarynx vs 50% for epiglarynx). The final larynx preservation rate was 93%. In pts treated by XRT, there was no treatment related death and all the 9 local failures (12%) were T2 tumors arising the arytenoid or denuding the epiglottic cartilage. The 3 yr survival was 45% and the larynx preservation was achieved in 90% of pts. We recommend PS for (1) tumors of the laryngeal surface of epiglottis, (2) tumors of suprahoid epiglottis denuding the cartilage, (3) limited but infiltrating tumors of lateral epiglarynx and, (4) tumors reaching the arytenoid, all other cases being suitable for XRT.

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ASSESSMENT OF VOICE RESULTS IN GLOTTIC CARCINOMA TREATED BY IRRADIATION, CO₂ LASER RESECTION AND CORDECTOMY BY MEDIAN THYROTOMY

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The different types of treatment for T1a T1b vocal cord carcinoma: radiotherapy, cordectomy by median thyrotomy and endoscopic CO₂ laser resection offer from the oncologic point of view nearly the same results. When choosing the therapeutical procedure the functional results, regarding voice quality, are of main importance.

This study is directed to establish the differences of voice quality between patients treated by radiotherapy, conventional cordectomy and CO₂ laser resection.

Since the T1 vocal cord carcinomas is not a homogenous group of tumors and because the treatments are also different in some aspects comparison between the three groups could be erroneous. To avoid it we select a group of patients, treated by each one of the treatment types, of nearly the same characteristics on size and degree of infiltration. (Phonatory results by objective acoustical, etc.)

Phonatory results by objective acoustical analysis, visual evaluation by stroboscopy and perceptual evaluation by the patient and voice experts are presented.

The relationship between all degree of surgical resection on voice quality are discussed.

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SUPRAGLOTTIC CANCER-COMBINED RADIOTHERAPY/CHEMOTHERAPY AND/OR NEW FRACTIONATION SCHEDULES. DO THESE APPROACHES IMPROVE THE RESULTS COMPARED TO CONVENTIONAL RADIOTHERAPY? A REVIEW OF THE SITUATION IN 1995

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The principal goals in the management of laryngeal cancer are eradication of disease with preservation of function. The optimal treatment should be chosen for each patient. Several points will be emphasized.

—The results of conventional radiotherapy in several studies, including results of supraglottis in Institut Curie. The effects of dose-time-fractionation on local control.

—The results of clinical trials using altered fractionation schedules such as hyperfractionation, accelerated fractionation, treatment with split course, or with concomitant boost—Studies comparing altered schemes to conventional radiotherapy will be reviewed.

—The role of chemotherapy as part of combined modality programs and as part of larynx preservation. Results of clinical trials, especially with induction or concomitant chemoradiotherapy will be discussed.

—The value of cell kinetics measurements to predict radiosensitivity: labeling index, length of S-phase, potential doubling time and therapeutic implications.

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PROGNOSTIC FACTORS FOR ORGAN PRESERVATION IN PATIENTS WITH ADVANCED LARYNGEAL CANCER

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The effectiveness of induction chemotherapy combined with radiation therapy as an organ preservation treatment strategy would be enhanced by improved methods to select for patients with a high likelihood of success. Detailed analyses of prognostic factors for chemotherapy response and ultimate organ preservation were undertaken in 166 patients randomized to 3 cycles of cisplatin/5-FU and definitive radiation (66–76 Gy). Overall tumor size and histologic pattern of growth were significant predictors of complete response after chemotherapy. Successful organ preservation was significantly associated with T class, performance status, and p53 overexpression. In patients with supraglottic cancers treated surgically, disease-free and overall survival were significantly associated with histologic growth pattern. Organ preservation after chemotherapy and radiation was predicted by performance status, prior tracheostomy and chemotherapy response. Until better molecular markers of chemo/radio sensitivity are available to optimize patient selection for organ preservation, histologic response to induction chemotherapy appears most reliable.

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NO ABSTRACT

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INHIBITION OF 3', 5'-CYCLIC NUCLEOTIDE PHOSPHODIESTERASE AS A NOVEL CONCEPT IN TUMOUR THERAPY

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A wide spectrum of human and animal tumour cell lines exhibit significantly lower cAMP levels than normal cells, as a consequence of strongly enhanced activities of a cAMP-specific phosphodiesterase isoenzyme (PDE). Inhibition of this isoenzyme by selective inhibitors results in a long lasting, concentration-dependent rise of intracellular cAMP, accompanied by marked growth inhibition. At higher concentrations of the inhibitor ($>3 \mu$ M), induction of apoptosis becomes apparent, as detected by flow cytometry, confocal microscopy and ELISA-based determination of fragmented DNA in intact cells. Thus tumour-associated overexpression of a cAMP-specific PDE-isoenzyme in proliferating tumours offers a novel cellular target for selective antineoplastic therapy.

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NEW CONCEPTUAL AND METHODOLOGICAL APPROACHES TO ANTICANCER DRUG DEVELOPMENT

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Although cancer chemotherapy and hormonal treatment may have significant palliative effects in the systemic treatment of malignant disease, major steps towards a cancer cure by drugs cannot be expected from these therapies. Therefore, the originally successful empirical approach to drug discovery should probably be substituted by a more rational drug design. Molecular genetics have produced enormous progress in our understanding of the principles of tumor development and tumor growth. For the first time in the history of anticancer drug development it now