

stage (2-sided  $p=0.05$ ). There were no objective responses to chemotherapy given to 4 patients for recurrent disease. Overall (OS) and progression-free survival (PFS) was 79.8% and 74.6% at 5 years, respectively. Adjuvant radiotherapy had a significant association with both OS ( $p=0.006$ ) and PFS ( $p=0.00001$ ). Furthermore, recurrent disease was observed to have a significant negative impact on OS ( $p=0.006$ ).

**Conclusion:** This study confirms the beneficial role of adjuvant radiotherapy in patients with resectable thymoma regardless of surgical margins.

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### Cisplatin + irinotecan in recurrent/metastatic salivary gland malignancies

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The use of chemotherapy for recurrent Salivary Gland Malignancies (SGM) is under investigation. Fourteen pts (10 males, 4 females; median age = 55 yrs, range 20-70; median ECOG PS = 1) with recurrent SGM of major (9 pts) and minor (5 pts) SG origin (histology: 1 adenocarcinoma, 10 adenoid cystic carcinoma, 2 undifferentiated carcinoma, 1 mucoepidermoid carcinoma) were treated with DDP 60 mg/m<sup>2</sup>, on day 1 plus CPT11 60 mg/m<sup>2</sup> on day 1 and 8 (every 3 weeks for a minimum of 2 cycles). All pts had been previously treated with surgery+radiotherapy and 6 with a DDP-based chemotherapy. One patient had a local lesion, 7 had loco-regional recurrences and metastases and 6 patients had metastases only. Responses were: PR in 1 patient (7%), lasting 4 months; 5 NC (36%) with a median duration of 3.5 months (2.5-6), and 8 PD (57%). The median survival time was 7 months. The major toxicity were neutropenia (grade 3-4 in 9/14 pts = 64%) and diarrhea (grade 3-4 in 4/14 = 28%). In conclusion in our experience this combination appears less effective than DDP+vinorelbine (Cancer 91:541-547, 2001) and carboplatin+taxol (Anticancer Res. 20: 3781-3784, 2000) with a significant and unacceptable toxicity.

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### Effect of radiation therapy fraction size on local control of T1 and T2 glottic carcinoma

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**Purpose:** Different radiotherapy fractionation schedules are used to treat patients with T1 and T2 carcinoma of the vocal cord in our institution. A retrospective analysis was performed to study the effect of fraction size (2.25Gy versus 2.5Gy) on local control in this group of patients.

**Methods and materials:** A total of 75 previously untreated patients with T1 and T2 invasive carcinoma of the true vocal cords were irradiated between July 1991 and Jan 2002. Five patients were censored due to missing information. All patients received irradiation (Cobalt 60 and 6MV), 56 patients (51 patients with T1 lesions and 5 patients with T2 lesions) received daily fractions of 2.5 Gy to a dose of 50 Gy and the remaining 14 patients (4 patients with T1 lesions and 10 patients with T2 lesions) received 65.25 Gy in 29 fractions of 2.25 Gy each.

**Results:** At a median follow-up of 30.5 months, the 5 year disease-free survival and overall survival were 81% and 98%, respectively. Local control at 5 years for patients treated with 2.5 Gy/fraction was 91% compared to 44% for those treated with 2.25Gy/fraction ( $p=0.0003$ ). Among the prognostic factors tested, such as stage, anterior commissure involvement, smoking history, energy, field size, gender, age, duration of treatment and fraction size, the last three were significant predictors in univariate and multivariate analyses.

**Conclusions:** From the results of this retrospective review of patients treated with radiotherapy for T1 and T2 true vocal cord cancer and within the range of total doses and overall treatment times used in our patients, it was found that fractionation schedules using daily fraction size of 2.5 Gy, duration of treatment  $\leq 31$  days and older age are associated with a better local control than delivering 2.25 Gy/fraction, a longer duration of treatment and younger age.

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### Transoral CO2 laser surgery for organ preservation in hypopharynx carcinomas.

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**Background:** Transoral CO2 laser surgery has been employed for organ preservation in early larynx carcinomas. We analysed the follow-up and functional results of selected patients (pts) with hypopharynx carcinoma treated by means of CO2 laser and we compared retrospectively the results with our historical patients treated with neoadjuvant chemotherapy and external conventional surgery.

**Material and methods:** Selected patients with hypopharynx (stage I to IVA) carcinoma treated with curative intention. Tumors with preoperative invasion of thyroid cartilage, deep tumor growth into the cervical space, tumors involving the cervical esophagus or both arytenoids were excluded. Historical controls were treated with two courses of cisplatin, 120mg/m<sup>2</sup> plus bleomycin, 20mg/m<sup>2</sup> (day 1 to 5) iv. in continuous perfusion followed by conventional surgery. Postoperative neck radiation was added in both groups if there were intranodal metastasis in  $\geq 2$  lymph nodes, node rupture at the histopathologic analysis, or the metastasis diameter was greater than 2 cm.

**Results:** 28 patients were included in the laser group, 27 were male and one female, with a mean age of  $56.6 \pm 7.32$  years. Stage distribution: 0% I; 21.4% II; 28.6% III; and 50% IVA. Complete tumor resection was achieved in 86%, and marginal resection in 14% of the patients. Postoperative radiation therapy was given in a 57% of the patients; 43% over the nodes and 14% over nodes and primary site. Functional outcome: larynx and function was achieved in 75% of the patients. In 21.4% a non functional larynx was preserved, and in 3.6% total laryngectomy was necessary. After a median follow-up of  $40.5 \pm 12.2$  months, 50% of the patients are alive and disease-free. Overall and disease-specific survival rates were 43.4% and 59.4% respectively. Patients were compared with a stage-matched control group of 25 patients treated with neoadjuvant chemotherapy plus conventional surgery at our institution. Preservation organ was achieved in two patients (8%), and there were no significant differences in overall and disease-specific survival rates comparing with the laser group. Conclusions: In selected patients with hypopharynx carcinomas, CO2 laser surgery is able to preserve larynx function without reduction in survival rates.

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### Squamous cell carcinoma of the soft palate managed with primary radiation therapy: patterns of nodal failure.

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**Background:** Squamous cell carcinoma of the soft palate (SCSP) is a relatively rare tumour. The purpose of this report is to describe the patterns of nodal relapse for patients with SCSP treated with primary external beam radiation therapy (EBRT).

**Materials and Methods:** The clinical records of all patients treated with EBRT at our institution for SCSP between 1980 and 1996 were retrospectively reviewed. Data collected included patient demographics, tumour description, radiation details and clinical outcome. The location of recurrent neck disease was determined with respect to the irradiated volumes for each patient.

**Results:** During the period of review 133 patients with SCSP were treated with EBRT. There were 84 males and 49 females with a median age 60 years (range:43-93). T-categories were: Tis(9); T1(12); T2(60); T3(47); T4(5). Nodes were clinically involved in 37/133(28%) patients. N-categories were N0(96); N1(21); N2A(2); N2B(3); N2C(6); N3(5). The median radiation dose was 51 Gy in 20 once daily fractions (range 28-70 Gy) with 72% of cases receiving the median dose. Radiation was administered with bilateral techniques (parallel opposed pair) in 108(81%) and with an ipsilateral approach (wedge pair) in 24(19%). Posterior neck fields to include upper zone V (photons followed by direct lateral electrons) were used in 47(35%) and the lower neck (zone IV) was treated in 64(48%). The median follow up time was 3.6 years (range:0.4-17). Actuarial rates of overall and disease free survival at 5 years were 39% and 53%. 5 year local, nodal and distant relapse free rates were 65%, 70% and 65%. Local control by T-category was: Tis(86%); T1(57%); T2(77%); T3(51%); T4(0%). Nodal control by N category was: N0(80%); N1(48%); N2A(50%); N2B(0%); N2C(44%); N3(60%). Patterns of nodal failure indicated 5/24 (21%) patients treated