stage (2-sided p=0.05). There were no objective responses to chemotherapy given to 4 patients for recurrent disesase. 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). Furthemore, 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.

131 POSTER

Cisplatin + irinotecan in recurrent/metastatic salivary gland malignancies

F. Pedani, M. Airoldi, S. Marchionatti, C. Bumma. *S.Giovanni Antica Sede Hospital, Medical Oncology Department, Torino, Italy*

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 (hystology: 1 adenocarcinoma, 10 adenoid cystic carcinoma, 2 undifferentiated carcinoma, 1 mucoepidermoid carcinoma) were treated with DDP 60 mg/m^2, on day 1 plus CPT11 60 mg/m^2 on day 1 and 8 (every 3 weeks for a minimum of 2cycles). 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 3-4in 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.

132 POSTER

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

E. Nedea, K. Sultanem, T. Vuong, R. Corns, G. Shenouda. *Mcgill University (Montreal General Hospital), Radiation Oncology, Montreal, Canada*

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 <=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.

133 POSTER

Transoral CO2 laser surgery for organ preservation in hypopharynx carcinomas.

I. Vilaseca-González[1], J.J. Grau[2], J.J. Blanch- Alejandro[1], M. Moragas-Lluis[1], M. Bernal-Sprekelsen[1]. [1]*Hospital Clínic Universitari, ENT, Barcelona, Spain;* [2]*Hospital Clínic Universitari, Oncology, Barcelona, Spain*

Background: Transoral CO2 laser surgery has been employed for organ preservation in early larynx carcinomas. We analysed the 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/m2 plus bleomycin, 20mg/m2 (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 * 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±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±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.

134 POSTER

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

J. Waldron, L. Gitterman, A. Bayley, B. Cummings, J. Kim, J. Ringash, P. Warde, B. O'Sullivan. *Princess Margaret Hospital, Radiation Oncology, Toronto, Canada*

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

to the ipsilateral neck only failed in the contralateral neck while 2/108 (2%) of those treated with bilateral techniques failed in the contralateral neck. The neck failure rate for patients with N0/N1 disease treated with bilateral techniques that included the posterior neck was 4/29(14%). When posterior neck treatment was omitted the failure rate was 18/65(28%) with 10/18(56%) of these failures in zone V. No patients failed in the lower neck (zone IV).

Conclusions: Local control rates for patients with SCSP in this series were unsatisfactory and support our contemporary practice of more intensive radiotherapy dose schedules than those administered during this study era. Patterns of lymph node failure confirm the need for bilateral neck treatment that also includes the posterior neck zones. Treatment to zone IV in the lower neck appears unnecessary in N0 patients.

135 POSTER

The effect of STI 571 on deoxycytidine kinase activity in head and neck squamous cell carcinoma in vitro: clinical implications

I. Bruce[1,3], T.H. Ward[1], J.J. Homer[2,3], N.J. Slevin[2]. [1]*Paterson Institute for Cancer Research, Drug Development, Manchester, United Kingdom;* [2]*Christie Hospital, Clinical Oncology, Manchester, United Kingdom;* [3]*Manchester Royal Infirmary, Otolaryngology, Manchester, United Kingdom*

The biological agent STI 571 is a 2-phenyl aminopyrimidine derivative that was designed to be effective against CML via inhibition of bcr-abl tyrosine kinase. The drug is known to inhibit 2 further tyrosine kinases to date, namely PDGFR and c-kit. Recently the authors have demonstrated gleevec to have a growth inhibitory effect on Head and Neck Squamous Cell Carcinomas (HNSCCs). Combinations of STI 571 with other routinely used chemotherapeutic agents were assessed using a 2 dimensional 96 well assay and the results were displayed using a 3-D model. STI 571 was found to display significant antagonism when used in combination with gemcitabine across a panel of 6 HNSCCs. Gemcitabine requires phosphorylation by deoxycytidine kinase prior to incorporation into DNA and RNA. The authors hypothesised that the basis of this observed antagonism might be deoxycytidine kinase inhibition. A deoxycytidine kinase assay using [3H] deoxycytidine was used to assess activity. Deoxycytidine phoshorylation by thymidine kinase was obviated by the addition of thymidine too the reaction mixture. Enzyme activity was recorded and a correlation was seen between activity and gemcitabine toxicity. Further testing demonstrated a dose dependant inhibition of deoxycytidine kinase activity by STI 571. This study highlights in deoxycytidine kinase a new potential target for STI 571 inhibition. This suggests that STI 571 has a more widespread action on kinase pathways than as yet understood. Future clinical usage of STI 571 in HNSCCs will almost certainly lead to resistance and if the mechanism involves upregulation of deoxycytidine kinase the possibility of collateral sensitivity to gemcitabine should be considered.

136 POSTER

Phase II trial of Docetaxel (D) and Cisplatin (C) combination in locally advanced undifferentiated carcinoma of nasopharyngeal type (UCNT)

M. Yamouni[1], Y. Beldjillali[1], I. Lahfa[1], K.A. Benhadji[1], B. Larbaoui[1], M. Brahimi[2], M. Ait-Said[2], L. Djellali[1], K. Bouzid[3]. [1]*CHU Oran, Department of Medical Oncology, Oran, Algeria;* [2]*Aventis Pharma, Algiers, Algeria;* [3]*EHS Pierre & Marie CURIE Center, Department of Medical Oncology, Algiers, Algeria*

Aim of the study: To asses the antitumoral efficacy and the toxicity of neoadjuvant DC in patients (pts) with locally advanced UCNT (WHO type 3).

Patients & Methods: Previously untreated pts with histologically diagnosed locally advanced UCNT (Stage IVA and IVB TNM/UICC 1997) were enrolled between august 2001 and august 2002 in this phase II study. Pts received D 75 mg/m 2 and C 75 mg/m2 both on day 1. Cycles repeated every 21 days. Every pt received three cycles in a neoadjuvant setting. Before radiotherapy (4 to 6 weeks after the third cycle of DC), pts were evaluated by clinical examination, nasofibroscopy with biopsy and CT scan of nasopharynx.

Results: All pts were evaluable for efficacy and toxicity. There are 65 pts (46 male, 19 female) with a median age of 41 years (range 18 69) and a performance status (WHO) of 0-1 in 61 pts, 2 in 4 pts. Fourteen pts had stage IVA and 51 pts had stage IVB. Response rates for the 65 pts were: complete pathologic response 44%, partial response 46%, stable disease 7% and progression 3%. The overall response rate (ORR) was 90%. After 195 cycles, grade 3 & 4 toxicity (WHO) were: neutropenia (15.5%), febrile neutropenia (3%), anemia (1.5%), nausea and vomiting (23%), diarrhea (7%), mucositis (1%), reversible alopecia (71%). Two pts had oncolysis.

Conclusion: DC is an effective regimen with an acceptable safety profile in locally advanced UCNT.

137 POSTER

Advanced tumors of the skull base. Diagnostic, clinical and therapeutic features.

A.M. Mudunov[1], E.G. Matyakin[1], O.M. Meluzova[2]. [1]*Blokhin's Cancer Research Centre, Upper Aerodigestive Tract Tumors, Moscow, Russian Federation;* [2]*Blokhin's Cancer Research Centre, X-Ray Diagnostic Methods, Moscow, Russian Federation*

Introduction: tumors of the skull base are one of the most difficult nosological forms among others in head and neck due to the complex topography, absence of clear clinical picture and therapeutic tactic, difficulties of surgical intervention owing to the combined lesion of several anatomic zones and consequently low survival rate and disease-free follow-up.

Material and methods: 320 patients with various tumors of the skull base were treated at our clinic for the period within 1980-2003. 146(45.6%) pts out of them with various malignant tumors of paranasal sinuses and nose cavity (including 12(3.7%) with esthesioneuroblastoma), 167(52.2%) with the soft-tissue tumors of parapharyngeal localization, 4(1/2%) primary tumors of the orbit, 3(1%) advanced skin cancer spreading into the skull base. Cure tactic depended on histologic type, tumor spreading and localization. Main diagnostic procedures were CT, MRI scanning, ultrasound, in some cases angyography, endoscopy, aspiration biopsy and postoperative histology.

Results: 18 (5.6%) pts mainly with mesenchymal tumors and primary skull base cancer had chemoradiotherapy as the first step procedure with subsequent surgery. 36 (11.2%) pts had palliative chemoradiotherapy with 27.7% complete clinical response. Combined treatment modality (radiotherapy + surgery) performed in 48 (15%) cases of epithelial cancers. 44 (13.7%) pts had palliative radiotherapy with 6.8% complete clinical response. 223 patients had an operation. Extended surgery performed in 71 (31.8%) cases with combined resections of maxilla at one or both sites, orbit, ethmoidal cells, walls of frontal and sphenoid sinuses, dura mater. 27 (8.4%) pts had intracranial tumor spreading into anterior, middle and/or posterior cranial fossa. In these cases combined craniofacial approach performed for radical surgery with subsequent plastic reconstruction of the dura defect by pericranial or myofascial flap. Liquorrhea developed in 2 (7.4%) cases. An external neck approach was quiet enough for total removal of parapharyngeal tumors (160 pts) located basically in the limits of infratemporal fossa. 27 (8.4%) pts with advanced primary tumors had different treatment failures such as local recurrence or distant metastasis.

Conclusions: preoperative chemoradiotherapy in advanced non-epithelial tumors of the skull base allows to achieve significant regress of the primary site and to increase resectability. Application of CT and MRI allows in most cases detect correct diagnosis, especially in benign tumors, estimate tumor spreading and connections to the main anatomic formations of the head and neck (blood vessels, nervous branches, brain and spinal cord), plane further surgery volume and adequate cure. Intracranial tumor spreading required combined craniofacial approach with the purpose for radical surgery.

138 POSTER

Tumors of maxilla defeating the orbit.

U.T. Holtaev, R.I. Azizyan. *Blokhin's Cancer Research Centre, Upper Aerodigestive Tract Tumors, Moscow, Russian Federation*

Introduction: Anatomic feature of accessory nasal sinuses and their correlation with walls of orbit are actual problem of tumor pathology of orbit.

Material and methods: 286 patients with tumor of maxilla have been treated in department of Upper Aerodigestive tract tumors at the N.N.Blokhin's Cancer research center RAMS during 1980-2002 years. Defeat of orbit was observed in 80(28%) patients. Different morphological forms of cancer have been identified in 47 cases: squamous cell cancer in 30(63,8%) patients, transepithelial cancer 6(12,8%), adenocystic cancer 9(19,2%), adenocarcinoma 2(4,2%). In other cases we observed following tumors: sarcoma in 13 patiehts, esthezyoneuroblastoma-10, melanoma-2, benign tumors and pseudotumors of orbit - 7 patients.33 patients have been treated by combined method, 10 by complex, 1 by surgery, 18 by chemoradiotherapy, 13 by only radiotherapy, 5 by palliative chemotherapy.