

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.

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POSTER

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

J. Bruce<sup>1,3</sup>, T.H. Ward<sup>1</sup>, J.J. Homer<sup>2,3</sup>, N.J. Slevin<sup>2</sup>. <sup>1</sup> Paterson Institute for Cancer Research, Drug Development, Manchester, United Kingdom; <sup>2</sup> Christie Hospital, Clinical Oncology, Manchester, United Kingdom; <sup>3</sup> 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 phosphorylation 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.

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

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

**Aim of the study:** To assess 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<sup>2</sup> and C 75 mg/m<sup>2</sup> 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.

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

A.M. Mudunov<sup>1</sup>, E.G. Matyakin<sup>1</sup>, O.M. Meluzova<sup>2</sup>. <sup>1</sup> Blokhin's Cancer Research Centre, Upper Aerodigestive Tract Tumors, Moscow, Russian Federation; <sup>2</sup> 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 angiography, 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.

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### 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 patients, esthesioneuroblastoma-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.