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POSTER

Predictive value of p53 and PCNA expression for occult neck metastases in patients with clinically node-negative oral tongue cancer

K. Keum¹, E. Chung², W. Koom¹, J. Cho¹, S. Cho³, E. Choi⁴, C. Lee¹, C. Suh¹, G. Kim¹. ¹Yonsei University Medical College, Radiation Oncology, Seoul, Korea; ²National Health Insurance Cooperation, Radiation Oncology, Ilsan, Korea; ³Yonsei University Medical College, Pathology, Seoul, Korea; ⁴Yonsei University Medical College, Otorhinolaryngology, Seoul, Korea

Background: In an attempt to identify molecular markers predictive of occult neck metastases, we investigated whether positive p53 or proliferating cell nuclear antigen (PCNA) immunoreactivities on deparaffinized sections of the primary tumor are correlated to the presence of occult neck node metastases in oral tongue cancer patients with clinically negative cervical nodes (N0).

Materials and Methods: Between 1986 and 1997, 37 clinically N0 patients who underwent functional supraomohyoid neck dissection (32 male, 15 female; mean age 54 years) were selected for p53 and PCNA staining.

Results: p53 and PCNA immunoreactivities were detected in 68% and 32%, respectively. There was no correlation between p53 or PCNA and other clinicopathological factors, such as tumor differentiation, tumor type, tumor size and T-stage. Although tumor differentiation ($p=0.03$) and tumor size ($p=0.03$) were significantly correlated with occult neck metastases of oral tongue cancer by univariate analysis, no correlation was found between p53 or PCNA and the presence of occult neck metastasis. Tumor size (>2 cm) was the most important risk factor in multivariate analysis ($p=0.05$).

Conclusions: p53 and/or PCNA expression are unsuitable as biological markers predictive of lymph node metastases of oral tongue cancer, and thus that p53 or PCNA positive status are not a reliable parameter for selection of elective neck dissection in the management of N0 oral tongue cancer patients.

Publication

Head and neck and endocrine cancer

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PUBLICATION

Role of CT imaging in predicting response of nasopharyngeal carcinoma to definitive radiation therapy

J. Lu¹, X. Ma^{1,2}, T. Loh³, A. Thiagarajan¹, B. Goh⁴, L. Tan³. ¹National University Hospital, Radiation Oncology, Singapore, Singapore; ²Cancer Hospital of Fudan University, Radiation Oncology, Shanghai, China; ³National University Hospital, Head and Neck Surgery, Singapore, Singapore; ⁴National University Hospital, Medical Oncology, Singapore, Singapore

Purpose: To investigate the role of post-treatment CT scans in assessing response of nasopharyngeal carcinoma (NPC) to definitive radiotherapy.

Material and Methods: Between March 1999 and October 2003, a total of 132 consecutive patients with newly diagnosed NPC were studied in this IRB approved protocol. Sixty-one patients with early stage disease (AJCC stage I or II) were treated with radiation only; 71 patients with locally advanced disease (stage III or IV) but no evidence of distant metastasis (DM) were treated with concurrent chemoradiotherapy. All patients received CT scans of the head and neck, nasopharyngoscopy, and biopsies of primary sites at 4–6 months after completion of radiotherapy. Clinical response of the primary tumor as determined by comparison of pre- and post-treatment CT scans was correlated to pathology results.

Results: The median follow-up time for all patients was 25 months (range 9 to 40 months). Radiological progression was seen in 5 patients, stable disease in 18 patients, and radiographic partial (rPR) and complete responses (rCR) were seen in 67 and 42 patients respectively at 4–6 months of follow-up.

Biopsies of the nasopharynx were positive in 6 patients. For patients with rCR, 2 patients (4.8%) had positive biopsies. Four patients with residual disease (rPR, stable, or progressive disease) following treatment had positive biopsies. The positive and negative predictive values, sensitivity, and specificity of CT scans in evaluating the NPC response to radiotherapy were 0.04, 0.95, 0.67, and 0.32, respectively.

Conclusions: Pathologic CR for nasopharyngeal carcinoma is usually evident at 4–6 months after definitive radiotherapy; however, there is no correlation between pathologic and radiographic response. Although longer follow-up is required to define the relationship between radiographic and pathologic responses with respect to disease control, we find CT scan at

4–6 months after radiation treatment to be neither sensitive nor specific in predicting the response of primary NPC to radiation treatment.

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PUBLICATION

Surgical treatment craniofacial malignant tumors

I. Reshetov¹, V. Cherekaev², A. Zaytsev¹, A. Belov². ¹Hertzen Moscow Cancer Research Institute, Microsurgery, Moscow, Russian Federation; ²Burdenko Neurosurgical Institute, Skull Base Surgery, Moscow, Russian Federation

Introduction: The management of craniofacial malignant tumors is associated with high risk of morbidity and mortality.

Materials and Methods: Between 1996 and 2001 69 patients, 39 males and 30 females aged from 8 to 74 years have been operated on by cooperative team of Herzen Cancer Research Institute and Burdenko Neurosurgical Institute. Craniofacial carcinomas were found in 35 cases, mesenchymal tumors in 16 cases, malignant osteoblastoclastomas in 2 cases, other tumors in 16 cases. In all cases preoperative biopsy was performed to plan the extent of treatment. Combined therapy, included preoperative or and postoperative radio and chemotherapy. Block resections were performed in 32 Patients, in other cases tumors were removed by fragments. For reconstruction of defects free vascularized flap technique was used (muscular, musculocutaneous, omentum vascularized flaps) in 22 cases. In 5 cases temporal muscle and periosteum flaps were sufficient for effective closure of defects. In 5 cases intraoperative radiotherapy was performed after block resection before plastic procedure.

Results and Conclusions: During the follow up period (3 to 6 years), out of 32 patients who underwent block resections 15 died, 17 survived, 17 of them survived more than 5 years. Out of 37 patients who underwent tumor removal by fragments 30 died, 7 survived, 7 of them survived more than 5 years. The multidisciplinary approach to this problem is necessary, including fundamental investigation of biological behavior of these tumors, complex of modern diagnostic techniques, radio and chemotherapy and cooperative surgical team, including craniofacial, plastic and skull base surgeons. Our experience demonstrates that craniofacial block resection improve survival rates in patients with craniofacial malignant tumors.

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PUBLICATION

Preliminary report of phase II study of neoadjuvant chemotherapy with paclitaxel, ifosfamide, and cisplatin (TIP) in locally advanced squamous cell carcinoma of the head and neck cancer (SCCHN) patients

I. Chitapanarux¹, V. Lorvidhaya¹, E. Tharavichitkul¹, P. Sittitrai², T. Pattarasakulchai², P. Kamnerdsupaphon¹, V. Sukthomya¹. ¹Chiang Mai University, Division of Therapeutic Radiology and Oncology, Chiang Mai, Thailand; ²Chiang Mai University, Department of Otolaryngology, Chiang Mai, Thailand

Background: Neoadjuvant chemotherapy has an increasing role in the treatment of unresectable advanced head and neck cancer. TIP regimen has been studied in recurrent and metastatic SCCHN, and produced high overall response rates. The goal of this study was to evaluate the efficacy and toxicity of TIP regimen as an induction chemotherapy for advanced SCCHN.

Methods: Patients with untreated SCCHN (exclude nasopharyngeal cancer) with WHO performance status ≤ 1 and good organ function were enrolled. All patients were given two cycle of TIP (paclitaxel 175 mg/m², cisplatin 60 mg/m² on day 1 and ifosfamide 1 gm/m² on day 1–3 plus mesna to decrease the urotoxicity of ifosfamide. Response evaluation after 2 cycles was performed. We continued another 2 cycles of TIP only in case of regression disease, then the patients received local treatment according their status.

Results: Twenty-seven patients with predominantly unresectable stage IV (25/27, 93%) were enrolled. The primary sites were maxillary sinus 10 patients (37%) followed by oropharynx 8 patients (30%), oral cavity 5 patients (19%), hypopharynx 3 patients (11%), and larynx 1 patient (3%). We observed 1 complete (4%) and 17 partial response (63%) after the chemotherapy. Six patients were stable disease (22%), and 3 patients (11%) were progression after 2 cycles of chemotherapy. All progression received palliative radiotherapy. Two partial response patients were eligible for a radical operation with free surgical margin. At the time of analysis 11 patients (41%) are still free from disease, 2 patients (7%) died in consequences of the tumor. The other 14 patients (52%) are living with disease. The most common toxicities of NCI-CTC grade 3–4 included: febrile neutropenia 4%, neutropenia 41%, anemia 4%, thrombocytopenia 7% of patients. No treatment related death occurred.

Conclusion: In locally advanced squamous cell carcinoma of head and neck, neoadjuvant chemotherapy with TIP produces a high rate of overall