Poster Sessions

Gastrointestinal cancer

1058 POSTER

Detection of disseminated tumor cells by immunocytology: standardization through computerassisted analysis

I. Vogel, C. Röder, D. Henne-Bruns, B. Kremer, H. Kalthoff. *University Hospital Kiel, General and Thoracic Surgery, Kiel, Germany*

Purpose: Preoperative detection of disseminated tumor cells can be regarded be a good selection-criteria of patients with high risk of tumor recurrence. To standardize the evaluation of immunocytologically detected disseminated tumor cells an automated screening systems will be helpful.

Methods: We analyzed cytospins from bone marrow aspirates of 242 patients with gastrointestinal carcinoma. Immunocytological analyses were performed with: 1. EPIMET-Kit™ (Baxter) and 2. with a cocktail of antibodies (tumor-associated antigens (TAA)): C1-P83 (CEA), Ca-19-9, Ra-96. (APAAP-method). The evaluation of 106 cells was performed by the author independently by conventional light microscopy and with the ChromaVision™-system.

Results: EPIMET-Kit: In 97.1% corresponding results for conventional and automated technique were found. TAA-cocktail: For further characterization of the tumor cells additionally analyses with the TAA cocktail was performed in 66 specimens. Corresponding results between conventional and automatic analyses were observed in 95.5% (63/66) of the patients. Comparison of the paired samples analyzed with both methods showed in 71% identical results.

Conclusion: After individual adjustment the automated computerassisted analysis with the ChromaVision™-systems allows an precise detection of disseminated tumor cells in less time (40%) than conventional analyses and therefore seems to be extremely useful for standardization.

The differences between the two detection methods might reflect the heterogeneity of the disseminated tumor cells.

1059 POSTER

Limited treatment-related toxicities are observed with cisplatin and 5FU during definitive chemoradiation for anal cancer

A. Hung[1], M. Ballo[1], C. Crane[1], M. Delclos[1], J. Ajani[2], T. Brown[2], B. Feig[3], J. Skibber[3], N. Janjan[1]. *[1]UT M.D. Anderson Cancer Center, Radiation Oncology, Houston, U.S.A; [2]UT M.D. Anderson Cancer Center, Medical Oncology, Houston, U.S.A; [3]UT M.D. Anderson Cancer Center, Surgical Oncology, Houston, U.S.A*

Aim: To document the well-tolerated nature of definitive chemoradiation for patients treated for anal carcinoma with concurrent cisplatin and 5-FU.

Methods: A retrospective analysis was performed among 92 patients with M0 squamous cell carcinoma of the anus treated between 1989-1998. By AJCC criteria, 5 patients had T1 disease, 44-T2, 28-T3, 10-T4, and 5-Tx. 70% [N=65] were node negative; 7 patients had N1 disease, 13-N2, and 7-N3 disease. The primary tumor and involved lymph nodes received 55Gy/30 daily fractions. The total dose to the pelvis was 50.4Gy. Cisplatin [4 mg/m2/day] and 5FU [250 mg/m2/day] were given as a continuous infusion, 5 days each week throughout the radiation course. Toxicity rates were evaluated and scored by RTOG criteria. Kaplan-Meier curves were generated for local control and overall survival.

Results: The median age was 58 years. There were 21 males and 71 females. Actuarial 5 year OS is 85%. The overall rate of local control is 82%; for T1 lesions, LC was 100%, 88% for T2, 74% for T3, 66% for T4. Local recurrences occurred in 16 cases; 15/16 local recurrences occurred within 16 months, and 9 patients have NED after APR. Median treatment time was the expected 42 days in >90% of cases; 7 patients required >46 days. Treatment compliance, due to socioeconomic reasons, was the cause of delays in 4 cases. 2 cases had prolonged courses because they developed upper GI bleeds that resulted in hospitalization. 1 case, previously treated with FAC for breast cancer, required hospitalization for fluid resuscitation that caused a treatment interruption. These patients represent 3 of the 5 cases [5%] of RTOG Grade 4 toxicity; the remaining cases did not sustain an interruption in XRT. 1 other case required parenteral support and the last case of Grade 4 toxicity was a perineal skin ulcer in the region of the tumor. RTOG Grade 3 toxicities were limited to the expected moist desquamation in the inguinal and perianal region [63 cases; 68%]. With good supportive care, other Grade 3 toxicities occurred in <10% of cases; Grade 3 diarrhea occurred in only 8 cases [9%], and nausea in 9[10%] cases. The only hematologic toxicity was grade 2 in 2 cases. Late toxicities occurred in 2 cases: chronic cystitis and a fistula.

Conclusions: Treatment-limiting toxicities are rare for chemoradiation for anal cancer with a regimen that uses cisplatin and 5FU. Therapeutic outcomes are comparable to those with more toxic regimens that use mitomycin-C and 5FU.

1060 POSTER

Gemcitabine and cisplatin chemotherapy for patients with metastatic esophageal carcinoma

S. Urba, S. Taylor, J. Paradelo, J. Abbruzzese, K. Chansky. *Southwest Oncology Group (SWOG), Seattle, USA*

A protocol was designed within SWOG to assess overall survival for patients (pts) with metastatic or recurrent esophageal carcinoma who were treated with gemcitabine and cisplatin chemotherapy. Pts could have received prior neoadjuvant therapy, but no previous chemotherapy for recurrent or metastatic disease, and no prior gemcitabine was allowed. The regimen was gemcitabine 1000 mg/m2 on Days #1, 8, and 15, and cisplatin 100 mg/m2 on Day #15. Cycles were repeated at 28 day intervals. Between 4/1/98 and 6/15/99, 62 eligible pts were enrolled from 37 institutions. 82% of pts had adenocarcinoma and 18% of pts had squamous cell carcinoma. 95% were males, and the median age was 57 (range 33-77). Three deaths occurred during treatment: 1 pt died from renal failure likely related to the cisplatin, 1 pt died from an arrhythmia, and 1 pt experienced severe depression and general decline. The most common Grade 3 or 4 toxicities were neutropenia - 16 pts (26%), leukopenia -15 pts (24%), lymphopenia - 10 pts (16%), nausea -10 pts (16%), vomiting - 6 pts (10%). The median survival is 7.2 months. Estimated 3-month survival is 81%, and 1-year survival is 20%. At this time, 7 pts remain alive (range of follow-up is 10-18 months). Conclusion: This regimen of cisplatin and gemcitabine was well tolerated, and survival compares favorably to the 50% 3-month survival previously observed for pts with metastatic esophageal cancer in former SWOG protocols. Other regimens of combination chemotherapy including gemcitabine will be investigated for esophageal cancer.

1061 POSTER

Bystander effect is dependent on gap junction in esophageal cancer

S. Matono, T. Tanaka, H. Yamana, S. Sueyoshi, U. Toh, H. Fujita, K. Shirouzu. *Kurume University, Surgery, Kurume, Japan*

Background: It has been recently reported that bystander effect (BE) in a gene therapy through herpes simplex virus thymidine kinase (HSV-TK)/ganciclovir (GCV) is mainly mediated by gap junction. We examined the relationship between BE and expression of gap junction protein, connexin (Cx), in esophageal cancer in vitro. Materials and Methods: We did our present study by using human squamous cell carcinoma cell lines, KE-series (8spesies), with the following procedures: 1) Immunohistochemistry, RT-PCR and Western blot for Cx26 and Cx43, 2) Dye transfer assays with Lucifer Yellow, and 3) Cell killing assay by using cells transfected with gene of HSV-tk and parent cells with GCV treatment. We further examined the effect of all-transretinoic acid in BE. Result: KE series expressed Cx43 mRNA in all cell lines used and protein in 3 of 8 cell lines and did not express Cx26 mRNA and protein. Localization of Cx43 protein was observed in cytoplasm and cell-cell contact area of KE-6 and in cell-cell interface of KE-8. Considerable GJIC capacity and BE was observed in KE-8 and