Taken together, only NSCLC and their derived cell lines were CD97+. The different epitopes of the molecule showed varying distributions within these tumours. SCLC and corresponding cell lines did not express CD97.

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Analysis of MAC-2 binding protein/90k expression in lung cancer

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Purpose: Mac-2 binding protein (Mac-2BP/90K) has been reported to induce the overexpression of MHC and cell-adhesion molecules on cultured tumor cells and to be overproduced in patients with various types of cancer and viral infection. Therefore, this protein is thought to play a crucial role in cellular immune responses in hosts. In this study, we analyzed the expression of Mac-2BP/90K in cultured lung cancer cell lines and tumor tissues from patients with primary lung cancer, and its immunogenicity as a tumor antigen.

Methods: Six lung cancer cell lines and 28 tumor tissues from lung cancer patients were examined for Mac-2BP/90K mRNA expression by Northern hybridization. Sera from cancer patients (n=18) and healthy donors (n=6) were studied for their reactivity to Mac2-BP/90K peptides by ELISA.

Results: Five of 6 (83%) cancer cell lines and 17 of 28 (60.7%) tumor tissues were shown to express high levels of Mac2-BP/90K mRMA. Serum levels of antibodies to Mac-2BP/90K peptides were elevated in 3 of 18 (16.7%) patients but in none of the healthy donors.

Conclusion: Mac-2BP/90K is suggested to be abundantly expressed in lung cancer cells, and to be sufficiently immunogenic to elicit humoral immunity specific for this molecule in cancer patients. Mac-2BP/90K is expected to be useful as a tumor antigen in immunotherapy for lung cancer.

157 POSTER

Neoadjuvant chemotherapy and extrapleural pneumonectomy (EPP) for malignant pleural mesothelioma (MPM)

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Objective: Pilot study to examine the tolerance and outcome of a pre-operative chemotherapy followed by EPP in patients (pts) with potentially resectable MPM.

Patients and Methods: From May 1999 to June 2000, 16 pts were evaluated by an interdisciplinary team for a multimodality therapy consisting of 3 cycles of preoperative chemotherapy with cisplatin (80 mg/m^2 day 1 every 28 days) and gemcitabine (1000 mg/m^2 days 1, 8 and 15), followed by EPP with or without radiation therapy to the area at risk.

Results: The cohort included 1 woman and 15 men with a median age of 57 years (range 48 to 68). Fifteen pts received all 3 cycles of chemotherapy. Major toxicity was haematological. The dose of gemcitabine had to be reduced due to thrombocytopenia in 15 of 47 cycles. Response was evaluated by CT scan. Seven pts had partial remission (43%), 5 no change (31%) and 4 disease progression (25%). Thirteen pts (82%) underwent an EPP. Two pts with progressive disease were not operated on and one pt with no change had only an explorative thoracotomy. Eleven pts had pure epithelial cell type tumors. In one pt the diagnosis of MPM could not be confirmed. Hilar or mediastinal lymph nodes were involved in 3 pts. There was no perioperative mortality. Major perioperative complications included atrial fibrillation (2 pts), acute coronary syndrome (1 pt), chylothorax (2 pts) and bronchial fistula (1 pt). All complications were treated successfully. Ten pts received postoperative radiotherapy. One pt died 7 weeks after EPP from suspected pulmonary embolism. Two pts died from relapse 11 and 19 months after initiation of chemotherapy. Four pts are alive with relapse occurring 9, 13, 15 and 18 months after start of treatment. Six pts are alive without evidence of recurrent disease. At one year, overall and event-free survival is 72% and 65%, respectively. The median survival and event-free survival is 19.4 and 15.4 months, respectively. Up dated results will be compared to our previous series of surgery, followed by chemotherapy and radiotherapy.

Conclusion: Chemotherapy with cisplatin and gemcitabine is effective in earlier stages of MPM. EPP after preoperative chemotherapy is feasible in the hand of an experienced surgeon. Treatment related complications in the perioperative period are manageable. Toxicity is acceptable and is comparable with our results of the trimodality therapy with postoperative chemotherapy. Based on this result we initiated a multicenter phase II study within the SAKK focusing on quality of life issues.

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A prospective infection survey in patients with lung cancer admitted to a cancer hospital

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Purpose: To delineate more precisely the nature and sources of infection in lung cancer patients.

Methods: All patients with lung cancer admitted into a cancer university hospital and developing any infection were included in a prospective survey. Characteristics of the patients, type and source of infection, antibiotherapy and outcome were registered.

Results: 277 patients developed 440 infectious episodes between January 1997 and January 2001. Bacteremia occurred in 8.2% of the cases; Gram positive bacteria, mainly staphylococci and streptococci, accounted for the majority of the documented pathogens (70.7%). The majority of the documented infections originated from the lung (55.5%). They consisted mainly in bronchitis (55.3%) and pneumonia (38.9%). The most frequent pathogens isolated from the airways were Haemophilus influenzae (34.8%), Streptococcus pneumoniae (10.9%), Staphylococcus aureus (8.5%), Moraxella catarrhalis (7.5%) and Pseudomonas aeruginosa (7%). Gram negative bacteria accounted for the majority of documented pulmonary infectious episodes (75.1%). Except for ampicillin resistance in Moraxella catarrhalis (80%), few bacteria were resistant to conventional antibiotherapy.

Conclusion: Our study confirms the importance of lung as a source of infection in lung cancer patients. If needed, empirical antibiotherapy must have adequate activity against Gram positive bacteria

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Combination effects of amrubicin, a novel anthracycline, with cisplatin on human lung cancer cells

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Amrubicin is a novel completely synthetic 9-aminoanthracycline derivative and its C-13 alcohol metabolite, Amrubicinol, inhibits purified human topoisomerase II (topo II). We examined the effect of combination with Amrubicinol and cisplatin (CDDP) in vitro using small cell lung cancer cell line (SBC-3) and adenocarcinoma cell line(Ma-1), using WST assay and analyzed by isobologram. Both drugs used together simultaneously and consequently, the combined effects were additive interaction both simultaneous and sequential administration. A high concentration of CDDP (300 maikuro M) enhanced the topoisomerase II inhibitory activity of Amrubicinol determined by DNA decatenation assay. On the other hand, Amrubicinol increased formation of DNA interstrand cross-links (ICL) on the cells, which analyzed using ethidium bromide binding fluorescence assay when we observed by simultaneous exposure to CDDP (0-30 maikuro M) and Amrubicinol (2 maikuro M) compared with CDDP alone. These biological interactions might result in synergistic interaction between Amrubicinol and CDDP.

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Ifosfamide, mesna and interferon alfa combination therapy in malignant mesothelioma: results of a single center in central Anatolia, Turkey

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Purpose: Malignant mesothelioma (MM) is a serious clinical problem in Central Anatolia due to environmental exposure to asbestos and erionite. MM is an agressive tumor and management is difficult. The purpose of study was to determine the efficacy of ifosfamide, mesna and interferon alfa combination therapy in MM patients.

Methods: The patients with histopathologically confirmed MM received a combinaton of Ifosfamide 3g/m2 1-3 days, uroprotective agent Mesna 3g/m2 1-3 days every 3 weeks and Interferon alfa (IFN) 4.5MU 3 days a week for 6 months as first line chemotherapy.