

Symposium no. 11: New Approaches to Cancer Diagnosis and Management

11.085

LATE ELEVATION OF SERUM TATI LIMITS ITS VALUE IN MONITORING EPITHELIAL OVARIAN CANCER.

¹J.E.Roulston, ¹J.Fisken, ²A.Bowman, ²R.C.F.Leonard.
Depts. ¹Clinical Chemistry and ²Clinical Oncology,
University of Edinburgh, U.K.

Elevated serum tumour-associated trypsin inhibitor (TATI) has been found in response to tumour-associated trypsin expression. TATI is thought to play a protective role in the host, by inhibiting proteolytic degradation of extracellular matrix and subsequent invasion by malignant cells of surrounding normal tissue. Serum TATI was assayed in 117 patients with epithelial ovarian cancer (EOC). Elevated levels were found post-operatively in 4/22 (18%) patients with stage I, 8/17 (47%) with stage II, 25/57 (44%) with stage III, and 13/21 (62%) with stage IV disease. TATI was most frequently elevated in serum from patients with serous, adenocarcinoma, and clear cell types. TATI has been advocated as a marker for mucinous EOC (Halila et al., Br.J.Cancer;57:304-307), however, only 3/17 (17%) patients in this study had elevated TATI. In a stepwise discriminant analysis, TATI added to the discrimination of CA125 ($r=0.029$, $p<0.0001$). TATI gave additional accurate information to CA125 only in patients with advanced poorly differentiated serous EOC. Larger studies are needed to determine the value of TATI in mucinous EOC, as those reported to date are based on small numbers of patients.

11.087

SERUM INTERLEUKIN LEVELS (SIL-2) IN MALIGNANT MELANOMA

Rudolf Z., Novaković S., Serša G.
The Institute of Oncology, Ljubljana, Slovenia/ YU

In a majority of human neoplasms a mitogen mediated decrease in the production of interleukin 2 (IL-2) in vitro can be observed. Poor resolution of the available tests does not enable the evaluation of spontaneous and in vivo IL-2 production in cancer pts. Using enzyme immunological test (Genzyme), SIL-2 concentrations were determined in malignant melanoma patients and healthy controls. The mean value of SIL-2 in 30 healthy persons was 222 U/ml (222±36). In MM patients this value was significantly lower: 37 U/ml (37±16). The difference in mean values between both groups was statistically significant ($p<0.05$). The mean level of SIL-2 in 5 IFN-treated pts was higher than the mean value for all pts (53 U/ml); the small number of pts and high variability of the obtained results, however, render the difference statistically insignificant. The results indicate that the decreased in-vitro production of IL-2 in MM pts is associated with a decrease in in-vivo IL-2 production, in comparison with healthy controls.

11.089

PROTEIN KINASE ACTIVITY IN SQUAMOUS CELL CANCER OF THE ORAL CAVITY AND OROPHARYNX.

EL Rydell, KL Axelsson, J Olofsson and S Hellem
Depts. of Pharmacology and Oral Surgery,
Linköping, Sweden and Dept. of Otolaryngology/
Head & Neck Surgery, Bergen, Norway.
Phosphorylation/dephosphorylation are important for regulation of various cell processes. Few studies have been performed on protein kinase activity in human tumours.

Material and methods. Protein kinase activity was evaluated in squamous cell carcinomas and normal mucosa of the oral cavity and oropharynx. **Results.** When histone IIa was used as substrate basal protein kinase activity was 3-fold higher in the soluble and 9-fold higher in the particulate fraction of tumour tissue compared to normal mucosa. The cGMP dependant protein activity was 5-10% of the cAMP dependant protein kinase activity.

Conclusion. The findings support that phosphorylation/dephosphorylation play an important role in the regulation of cell growth, proliferation and differentiation.

11.086

CA125 LEVELS AFTER ONE CYCLE OF CHEMOTHERAPY PREDICT GOOD, INTERMEDIATE AND POOR SURVIVAL IN PATIENTS WITH ADVANCED EPITHELIAL OVARIAN CANCER.

¹J.E.Roulston, ¹J.Fisken, ¹C.Sturgeon, ²L.Aspinnall,
¹R.C.F.Leonard. ¹University of Edinburgh, U.K., and
²Unilever Research, Colworth, U.K.

Several prognostic factors were included in univariate and multivariate analyses of survival, including; residual disease, age, tumour grade, performance status, the presence or absence of ascites or adhesions at primary surgery, and CA125. The CA125 level after one cycle of primary chemotherapy was a highly significant predictor of survival in patients with advanced epithelial ovarian cancer (EOC) ($n=57$, $p<0.0001$). This patient group was divided into quartiles on the basis of CA125 levels and, using the Log rank test, the difference between their survival curves was significant ($\chi^2=14.7$, $df=3$, $p<0.005$). Although CA125 was not independent of performance status, we were able to divide patients into three significantly different prognostic groups using CA125 levels at this time. Patients with CA125 levels $<55 \text{ Uml}^{-1}$ had a relatively good median survival of 23 months, patients with CA125 levels ranging from 58-434 Uml^{-1} had an intermediate median survival of 15 months, and patients with CA125 levels $>450 \text{ Uml}^{-1}$ had a poor median survival of 7 months.

11.088

ALKALINE PHOSPHATASE ISOZYME PATTERNS OF NORMAL, BENIGN PREMALIGNANT, HIGH RISK AND MALIGNANT HUMAN SERUM

MARTINEZ NR de, WELLER CM.

Molecular Pathology Laboratory, Tucumán National University, Tucumán, REPUBLICA ARGENTINA

Alkaline Phosphatase isozyme (ISO-AP) patterns were compared in 831 human serum samples from normal, benign, premalignant, high risk and malignant patients. Four isozymes were separated by column chromatography on DEAE-Sephadex A-50. The serum from benign lesions patients generally showed isozyme patterns similar to those of normal donors. The diagnostic sensitivity of ISO-AP patterns with relation to cancer in 302 patient bearing different tumors, in 253 high risk patients and 123 with benign diseases was 86%, 93% and 76% respectively. The diagnostic specificity was 89% and the effectiveness of the tests 83% for benign, 91% for high risk and 87% for cancer groups. ISO-AP patterns may be used as a tumor marker in patients with cancer as well as in high risk patients.

11.090

IMMUNOHISTOCHEMICAL STUDY OF ONCOGENE PRODUCTS (c-ERBB-2, c-MYC, RAS p21, EGFR) EXPRESSION IN BENIGN AND MALIGNANT BREAST LESIONS. RELATIONSHIPS WITH MORPHOLOGICAL AND BIOLOGICAL FEATURES.

Gloria Saccani Jotti, Marta Fontanesi, Marzio Gabrielli, Maura Bianchi, Gabriella Becchi, Armando Tardini
Institute of Pathology, University of Parma, Parma, Italy
Surgical Division, U.S.L. n. 5, Fidenza, Italy

The expression of oncogene products related to cell growth (c-erbB-2, c-myc, ras p21, EGFR), was investigated in benign (15) and malignant breast lesions (20) by means of immunohistochemistry using the avidin-biotin-peroxidase technique and monoclonal antibodies. The aim of this study was to evaluate the relationship between the staining positivity and various morphological and biological features, such as tumor type, grading, hormone receptor status and cell kinetic parameters. The preliminary data confirms the importance of studying the relationship between prognostic factors which may provide preoperative prediction in the biological behaviour of breast cancer, not only on biopsy specimens, but also on fine needle aspirates.