1394

SCC SERUM MEASUREMENTS FOR DIAGNOSIS OF RECUR-RENT CERVICAL CANCER

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Department of Obstet & Gynecol, University of Erlangen-Nuremberg, Germany One of the greatest clinical problems in the follow-up of cervical cancer patients is the differentiation between a local scar and a recurrence of the disease. It was the aim of our study to evaluate if the tumor marker SCC could be helpful to discriminate between scar and cancer. We therefore analysed the SCC serum levels of our cervical cancer patients from surgery until the suspicion and diagnosis of a local

In our department 130 patients with cervical cancer were operated between 1986 and 1991. The distribution of the FIGO-classification was as followed: Ia (n = 13), Ib (n = 70), IIa (n = 11), IIb (n = 36). During follow-up SCC levels were measured routinely using an immunoradiometric assay for SCC (SCC RIABEAD, Abbott, Wiesbaden, Germany). Concentrations below 1.5 ng/ml were considered as normal. Until January 1993 in 22 patients a local recurrence was detected. 14 (60%) patients had elevated SCC levels at that time and 8 (40%) patients had normal levels. In 9 (45%) patients the increase of SCC was observed up to 9 months before the detection of recurrence, while in 3 (15%) SCC levels were still normal 3 months before, however, elevated at time of detection of recurrence. In the remaining 2 patients SCC levels were always elevated between 1.5 - 3.5 ng/ml from primary surgery on. The further course of all 22 patients demonstrated that most of the patients with elevated SCC at time of diagnosis of recurrent disease could not be cured by local treatment anymore.

It should therefore be evaluated if the increase of SCC at that time is an indicator of hematogenous spread of cervical cancer.

CA 125 IN ADVANCED BREAST CANCER (BC). A SENSITIVE MARKER FOR LUNG INVOLVEMENT AND SIGNIFICANT PREDICTOR FOR SURVIVAL.

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CA 125 is not entirely specific for ovarian carcinoma, being its serum levels increased in many other malignancies including pancreas, lung, stomach, colon, utherus, or breast neoplasms. Elevated CA 125 levels were also found to significantly correlate with a poor prognosis in patients (pts) bearing ovarian cancer, lung cancer and uterine cervix adenocarcinoma. Employing one-step immunoradiometric assays CA 15-3 (Centocor, Malvern, USA) and CA 125 (Centocor, Malvern, USA) serum levels were evaluated in 113 metastatic BC pts: 65 with one metastatic site, 48 with two or more. Patient stratification according to metastatic site was: bone 56 pts, lung 68 pts (12 with pleural effusion), liver 24 pts, skin/limphnodes 21 pts. All blood specimens were collected before initiation of treatment in previously untreated patients, or before a change of treatment in previously treated patients. The intra- and inter-assay coefficients of variation of both markers were compatible with the criteria of validation of the methods. The cut-off values to discriminate the normal range of both CA 15-3 and CA 125 were 30 U/microL and 35 U/microL respectively. The overall sensitivity was 76% for CA 15-3 and 54% for CA 125, 81% for CA 15-3 + CA 125. In pts with lung involvement the sensitivity of CA 15-3 and CA 125 were 82% and 74% respectively. The actuarial survival was significantly higher (p<0.002) in pts with CA 125 < 35 U/MicroL (median 28 months) than pts with CA 125 above the normal range (median 18 months).

D14 ANTI-CEA MONOCLONAL ANTIBODY IN THE ESTIMATION OF NEOPLASTIC SEQUENCE IN HUMAN COLON.

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The relationship between the expression of CEA epitope detectable by D14 mAb with a higher specificity for colon cancer and the sequence of neoplastic changes in human colon was studied. The expression of CEA was estimated in colon adenocarcinoma and surrounding colon mucosa samples taken in different distance from malignant lesion. D14 reactivity in cancerous and precancerous lesions was also investigated. The highest expression of CEA was found in colon adenocarcinomas and its decrease until undetectable values was dependent on the distance of colon mucosa from the lesions. In carcinomas cytoplasmic staining was dominated and starting from adjacent mucosa mainly membrane reactivity was observed. The highest degree of D14 binding was found in colon adenocarcinomas and it gradually decreased in adenomas being minimal or undetectable in some polyps. Our results indicate that D14 mAb could be a good indicator of early malignant changes in human colon independently of some intra- and intertumoral heterogeneity in its binding ability.

1395

EXPRESSION OF MELANOMA-ASSOCIATED-ANTIGENS (MAAS), HLA I & II AND OF LYMPHOCYTE MARKERS IN BIOPSIES OF METASTATIC AND PRIMARY MELANOMA. M. Lotem, A. Abramovici, P. Roizman, A. Sulkes, J. Schachter and A. Adler Departments of Pathology, Dermatology and the Institute of Oncology, Beilinson Medical Center, Israel

Cryostat sections from 15 melanoma lesions (12 metastatic and 3 primaries) were examined for expression of MAAs, HLA class I&II and phenotype of infiltrating lymphoid cells. These were defined by the relevant MoAbs (Monoclonal Antibodies) and detected by the AP-Anti-AP (Alkaline Phosphatase) technique. The most prevalent MAA, detected by HMB45 MoAb, was found on 1/3 primary and 6/12 metastatic tumors. Other MAAs- detected by R24, CF21 and TA99 MoAbs - were found on 5 lesions, in various combinations. In one primary tumor all 4 MAAs were expressed concomitantly, while metastasis of this tumor did not express any. HLA-DR was detected in 8 cases and HLA class I in 7 cases, 6 cases expressing both. In two primary tumors, the underlying lymphoid infiltrate consisted mainly of CD4 positive cells. In metastatic lesions either peritumoral or intratumoral lymphoid cell infiltrates were observed: the former was predominantly CD4 positive (6 cases), while the latter was mainly CD8 positive (5 cases). This preliminary study demonstrates the heterogeneity of melanoma tumors in terms of MAAs and MHC class I &II expression and their lymphoid cell infiltrates. The object of this study was to establish a reproducible technique for detection of tumors' and lymphoid cells' markers' in melanoma biopsies and use it in conjunction with an ongoing melanoma vaccine study, for possible correlation with response to immunotherapy.

1397 .

CLINICAL EVALUATION OF COMMON SERUM TUMOR MARKERS (TM) IN PATIENTS (PTS) WITH BLADDER CARCINOMA (BC)

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Purpose of the study is to evaluate the usefulness of determing some common serum Tumor Markers in pts with bladder cancer. We have determined in the serum of 25 pts with locally advanced or metastatic bladder cancer the following Tumor Markers: CEA, CA-125, TATI, TPA, SCC, TAG-72 and b-HCG 20 \$\delta\$ and 5 Q with median age 64, years have been studied. The stages were III in 4 pts and IV in 21. The serum levels of Tumor Markers were measured using a radioimmuno-acces. (EIL) or a immunorable metals (IVMA) metals (IVMA) are assay (RIA) or a immunoradiometric (IRMA) method. 314 measurements have been made. All the pts were given chemotherapy. TATI and TPA showed the highest sensitivity (97% and 87% respectively). The levels of TATI only, were correlated well with the improvement and the progression of the disease in 52% of the cases.

CONCLUSION: TATI was the most valuable serum Tumor Marker for bladder cancer. TPA also showed a significant sensitivity.

1399

THE COMPARISON OF THE EXPRESSION OF OVARIAN CARCINOMA-ASSOCIATED ANTIGENS AND CEA IN TISSUE SECTIONS AND RESPECTIVE CYST FLUID CELLS OF OVARIAN NEOPLASMS. Bar JK., Harłozińska A., Sobańska E., Sedlaczek P. Dept. Tumor Immunol.,Silesian Piast's Med. Acad.Wrocław, Poland.

The reactivity of monoclonal antibodies (mAbs) against ovarian carcinoma-associated antigens (OC125,OV-TL3,OV632 108,8C) and CEA (D14) was estimated on epithelial ovariar neoplasms using immunoperoxidase (PAP) technique. The comparison of antigenic expression was performed on tumor tissues and cyst fluid cells in individual patients with malignant and benign ovarian neoplasms. All ovarian carcinoma-associated antigens were detected in majority of serous and endometrioid carcinomas. In mucinous carcinomas as well as in benign ovarian neoplasms the presence of these antigens was limited to individual cases. CEA epitope detectable by D14 mAb was found in approximately 50% of mucinous and endometrioid carcinomas. It was evident that the expression of antigens in tissue sections and respective cyst fluid cells was comparable, however within a given tumor sample the significant immunological heterogeneity was observed. Some antigens, especially detectable by OV632,OC125 and OV-TL3 mAbs could be helpful in differential diagnosis of ovarian neoplasms.