1400

SOLUBLE IL-2 RECEPTOR LEVELS IN BREAST CANCER - CLINICAL APPLICATION

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Soluble Interleukin 2 Receptor (sIL-2R) levels were recently shown to be associated with the immune system activation. In a retrospective study, we evaluated serum sIL-2R levels as well as Tumor Markers CA 15-3 and CEA in breast cancer patients, in order to assess the clinical usefulness of immunological and tumor markers together. The study consisted of 80 pts (89 samples). The distribution of patients according to age, TNM staging, pathological grading and activity of disease (evident versus NED) was registered and correlated to sIL-2R and Tumor Markers. A signifcant correlation was demonstrated between active disease and elevated sIL-2R (>750 u/ml) However, elevated sIL-2R serum levels were also measured in 8/53 pts with NED. This may herald the relapse of disease or merely reflect T cell activation due to concomitant immunological processes.

The overall sensitivity of CEA, CA 15-3 and sIL-2R is considerably greater than that of the individual markers. Further investigation will establish whether sIL-2R has a role in early detection of breast cancer and in prognosis.

Keywords: Breast Cancer, sIL-2R, tumor markers

1401

EPIDERMAL GROWTH FACTOR RECEPTOR, OV632 and OC125 EXPRESSION IN SMEARS OF OVARIAN CARCINOMAS.

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In this study we investigated the expression of EGFr, OV632 and OC125 on 44 imprint smears of ovarian carcinomas with the use of an immunocytochemical technique. We also compare the serum levels of OC125 with the immunocytochemical findings. Our results showed that 93.8%, 87.5% and 62.5% of the serous carcinomas reacted with OC125, OV632 and EGFr, respectively. Of the 10 muclinous carcinomas 20% reacted with OV632 and 60% with EGFr. No reaction was observed for these tumours with OC125. Positivity for all markers was also detected in endometrioid carcinomas in percentage values 100% for OC125, 87.5% for OV632 and 62.5% for EGFr. The combination of these three markers offers sensitivity (73.7%) and specificity (100%) for all ovarian carcinomas. We conclude that the combined use of EGFr, OV632 and OC125 on smears of the ovarian carcinomas enhances the sensitivity of the cytologic diagnosis especially when used to establish the type of the tumor.

Key words: Ovarian carcinoma, Tumor markers, Immunocytochemistry.

1402

CA 19-9 HIGH LEVEL IN IDIOPATHIC PULMONARY FIBROSIS

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Carbohydrate antigen 19-9 (CA 19-9) is widely used in clinical management of gastro-intestinal cancer. High levels can also be observed in any histologic type of lung cancer. Sparse cases of moderate elevation of CA 19-9 in non malignant lung pathology have been published . We report here 10 cases 8 M, 2 W, mean age 72 (45-90) of idiopathic pulmonary fibrosis with very high levels of CA-19 : mean value of 31 dosages realised in these patients is 217 U/ml (28-1800).

Other digestive and/or malignant pathology was eliminated in all patients. Moreover bi-pulmonary graft in one patient was followed by a normalisation of CA 19-9 : 1800 U/ml before graft, to 15 U/ml after graft. Comparison with other group of non malignant lung disease (12 chronic obstructive disease, 12 tuberculosis, 12 infectious pneumoniae, 12 sclerosis, 5 sarcoidosis) shows significant higher level in IPF. Histological analysis is in favour of a correlation between CA 19-9 level and the presence of proliferating epithelial that covered the remodeling alveolaire septi in IPF and not fibrosis by itself. In conclusion high levels of CA 19-9 in IPF patient did not necessitate research for an other etiology (i.e. digestive cancer) and did not preclude a decision of pulmonary graft.

2 key words- CA 19-9 -- Idiopathic pulmonary fibrosis

1403

MEASUREMENT OF THE GANGLIOSIDE FUCGM1 IN THE SERA OF 157 PATIENTS WITH SMALL CELL LUNG CANCER: VARIATION OF THE CONCENTRATION BEFORE AND DURING TREATMENT.

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Small cell lung cancer (SCLC) cells have been found to express the ganglioside FucGM1. So far, this has mainly been shown by immunohistological analysis. With a newly developed scintillation proximity assay (SPA) it has been possible to measure shed FucGM1 in the sera of patients with SCLC. Sera from 157 patients with SCLC admitted to four hospitals in the Copenhagen Oncology Group were measured for FucGM1 before treatment. The patients (age 35-79) were "staged" as having either local disease (LD),n=77, or extensive disease (ED), n=80. Sixty-four % had positive values - 66% in LD and 52% in ED, respectively. The FucGM1 values were significantly correlated to NSE values (p=0.002). However, the concentration of FucGM1 in ED was not significantly higher than in LD (Mann-Whitney test). Neither was shown correlation between FucGM1 and survival (life tables and log rank). Nine patients were monitored (5-20 samples) during and after treatment. Generally FucGM1-values decreased during response to treatment and increased at progression - even for a patient who initially was negative. More results will be presented. Recently, it has been shown that FucGM1 can act as a target for antibody dependent cellular cytotoxicity (ADCC) in vitro and in vivo. Further studies are needed to show whether the ganglioside FucGM1 have a role as a tumour marker in SCLC.

1404

THE CONTRIBUTION OF THE SERUM TUMOR MARKERS IN THE DIAGNOSIS, THERAPY EVALUATION AND FOLLOW UP OF PATIENTS WITH CARCINOMA OF THE UTERINE CERVIX

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INTRODUCTION This is a retrospective study concerning the evaluation of tumor markers CEA, Ca 12 5, TATI, SCC, TPA and Ca 72 3 in monitoring patients with cancer of the uterine cervix (estimation of the extent of the disease , efficiency of the treatment and detection of recurrence during follow up).

MATERIAL & METHOD In 134 women of stage Ib, IIa, IIb serum levels of the mentioned tumor markers were determined by RIA kit in different phases of their disease.

RESULTS

- Elevated serum levels were detected in 22% for SCC, 13,2% for TATI, 12% for CEA, and 18% for Ca 72 3. TPA proved very sensitive to be reliable. Serum levels of SCC, Ca 72 3 and TATI returned to normal after radical hysterectomy.
- The SCC, TATI and TPA antigen concentration decreased 4 weeks after postoperative RT.
- Increased levels of SCC, Ca 72 3 and TATI were found to correspond with loco regional relapses in 85% of the cases.
- Patients with elevated levels during treatment have a poor prognosis.
- SCC antigen is more sensitive in detecting recurrence or metastasis. The increase of TATI, SCC, Ca 72 3 during follow up is an early indication of recurrence.

1405

ANALYSIS OF SERUM TUMOR MARKERS FOR DIAGNOSIS OF SKELETAL METASTASES

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Serum tumor markers, including CA 19-9, CA 15-3, CA 125, CEA, AFP, ferritin, beta2-microglobulin and tissue polypeptide antigen that were determined by using M3 monoclonal antibody (TPS) were measured in 22 breast cancer patients with skeletal metastases and in 30 breast cancer patients without metastases. Patients with positive bone scans that were confirmed with radiographs and the abnormalities that were not caused by benign diseases were included in the study. CA 15-3, B2-MG and ferritin were found to be significant tumor markers in detecting skeletal metastases ($p < 0,001$). By combined measurement of these markers it was found that %90,4 of the cases could be evaluated truly (sensitivity %81,8, specificity %96,7). CA 15-3 was elevated in 16 patients (sensitivity %72,7, specificity %73,2) and in 19 patients B2-MG (sensitivity %86,4, specificity %46,7), in 11 cases ferritin (sensitivity %50, specificity %86,7) were elevated.

In conclusion in patients with breast cancer, measuring both CA 15-3, B2-MG and ferritin were found to be the most useful markers in detecting skeletal metastases.